Senior Executive Views

on Education in Alberta

Executive Summary

Richard J. Meanwell and Gail V. Barrington

Alberta
EDUCATION

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Richard J. Meanwell
The Alberta Management Group
Edmonton, Alberta

in association with

Gail V. Barrington
Gail. V. Barrington & Associates
Calgary, Alberta

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Please Note

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Abstract

The purpose of the study was to determine the strengths and weaknesses of the education system in Alberta from the perspective of senior executives in the private sector. The Minister of Education solicited the views of Alberta commerce and industry on the following:

- the current strengths of the education system;
- necessary improvements to educational programs and services;
- the knowledge, skills and attitudes necessary for Alberta graduates to meet the challenges and opportunities of a changing world.

The project was a small, exploratory pilot survey of the perceptions of Alberta leaders in order to provide direction and a base for further study.

The methodology consisted of interviews with 60 senior executives in a variety of industries and geographic areas of the province. The findings were analyzed in the following categories: expectations, satisfaction levels, problem areas, potential solutions, other comments.

The results indicated that business executives expect Alberta graduates to have a high degree of competence in *writing, reading, communicating* and *social studies* subjects, and to have good attitudes with respect to *learning, enthusiasm, work ethic and self-esteem*. These executives are most concerned about graduates' and young peoples' abilities in *writing, reading, communicating* and *numeracy*, and the apparent lack of a good *work ethic* in many young people. Generally, they are much less concerned (or actually satisfied) with abilities and attitudes in other areas.

With respect to other findings, senior executives are most concerned about:

- the degree to which students are *streamed* (although there is no consensus as to whether students should be streamed earlier, later or not at all);
- the need for better *standards* so that employers can be confident that those hired have the requisite knowledge and skills;
- the extent of program *choice* available to students; most believe there is too much choice and that the basics are not sufficiently stressed;
- the need for more *discipline* in the classroom, and for principals and parents to support teachers who try to implement more discipline;
- the need for *parents* to be more aware of their responsibility for the education of their children;
- the need to *reward teachers* who are performing well and deal with those who are not meeting the standard.

Twenty-eight executives (47%) stated that their organizations are either going into or should be going into the schools to expose students to business matters.

Nineteen executives (32%) indicated that their organizations are either bringing students or should be bringing students into the work place for experience and exposure to business and the world of work.

Seventeen executives (28%) indicated that business and education must cooperate more effectively.

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SENIOR EXECUTIVE VIEWS ON EDUCATION IN ALBERTA

This executive summary presents the main features and findings of a 1991 survey on education of 60 senior executives in Alberta.

Purposes of the Study

If young people are to be prepared for the future and to get the education they need to be successful citizens, entrepreneurs and employees, Albertans need to know the strengths and weaknesses of the education system. As part of this process, the Minister of Education solicited the views of Alberta commerce and industry.

In April 1991 the Minister sent letters to senior executives in 74 Alberta companies and organizations requesting their participation in addressing the following issues:

- the current strengths of the education system;
- necessary improvements to educational programs and services;
- the knowledge, skills and attitudes necessary for Alberta graduates to meet the challenges and opportunities of a changing world.

Specifically, the senior executives were asked to address the following questions during a personal interview:

- What are your expectations of our grade 12 graduates?
- What knowledge, skills and attitudes do you believe are necessary for them to be successful citizens, entrepreneurs or employees?
- How satisfied are you with their current level of knowledge, skills and attitudes?
- What needs to be improved in the educational system?
- How can business and industry become more involved?

The project was a small, exploratory pilot survey of the perceptions of Alberta leaders in order to provide direction and a base for further study.

Approach to the Study

It was decided that executives from relatively large employers in Alberta's private sector covering a wide cross section of industries should be interviewed.

- Commercial - retail, wholesale, real estate, tourism and hospitality, communications and the service industries.

- Industrial - energy, manufacturing and processing, transportation, construction and development, agriculture and utilities.

- Professional and Financial - medicine, law, accounting, architecture, engineering, insurance, banking and other financial institutions.

It was believed that firms from these sectors and industries would provide a rich and varied sampling of the views of business in Alberta. Care was taken to ensure that organizations were selected from across the province - Edmonton, Calgary, central and northern Alberta. The geographic area included Fort McMurray in the north and Banff in the west.

Of the 74 organizations and executives from whom an interview was requested, 60 senior executives agreed to participate. This represents 81%, which is considered very good in view of how busy these senior executives are. Of the 60 organizations interviewed, 19 (32%) were in the commercial sector, 27 (45%) were in the industrial sector, and 14 (23%) were in the professional and financial sector.

Figure 1 presents the organizations visited by type.

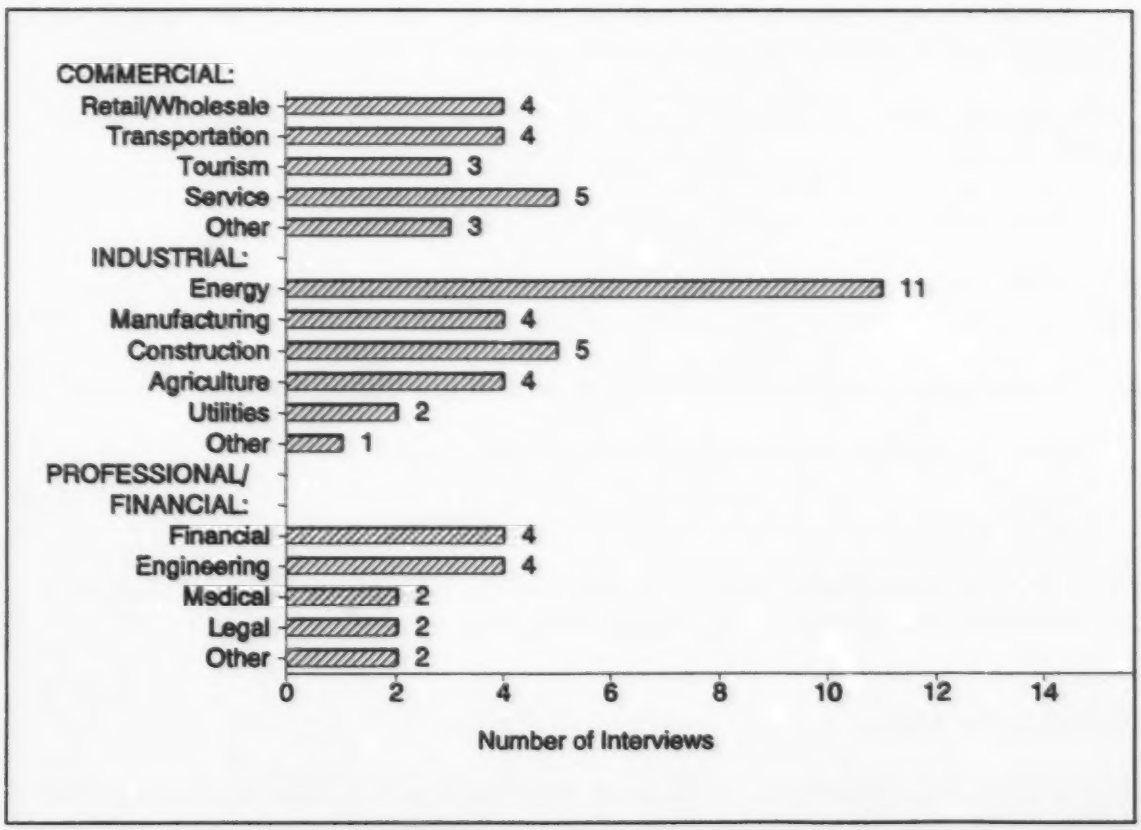

Figure 1
Type of Organization Visited

Limitations

It should be noted that because of the open-ended nature of the interviews, no effort was made to ensure all topics were covered with all executives. Therefore, the number of senior executives who had expectations and the percentages of those who stressed one facet over another indicate what the executives felt were the most important issues. A formal survey using a detailed questionnaire would be necessary to determine how all executives felt about each issue. Please refer to Recommendation 1 in the final section.

When executives were asked about satisfaction levels with knowledge, skills and attitudes, most preferred to identify areas of concern.

Findings - I. Senior Executives' Expectations - the Knowledge, Skills and Attitudes Necessary for Alberta Graduates

Some executives preferred not to focus primarily on their expectations of graduates, but rather to discuss areas of concern relating to Alberta graduates' knowledge, skills and attitudes necessary to meet the challenges and opportunities of a changing world. Many felt that their expectations could be derived from the latter if necessary.

Figure 2 shows that executives interviewed stated they expected high school graduates (and young people with some secondary schooling) to demonstrate a high degree of competence in the following major areas:

- *Writing*, including English, grammar and spelling - 60% of executives interviewed.
- *Communicating*, including listening, speaking and understanding - 48%.
- *Reading*, meaning comprehension and including exposure to literature - 43%.
- *Social Studies*, including government, politics, Canada, world events, history, geography and citizenship - 43%.
- *Numeracy* (mathematics and arithmetic) - 33%.
- *Computing*, including keyboard skills - 33%.
- *Science* (general, chemistry, physics) - 25%.

Other notable skills expected were *interpersonal* (23%), *life/survival* (20%), *business* (including finance, economics and budgeting - 17%), *job/career* (including interview skills - 16%) and *reasoning*, problem solving and thinking (16%).

With respect to expectations for attitudes, the most common areas cited were *learning to learn*, desire to learn and learning for life (33%), *enthusiasm* (including a positive, friendly

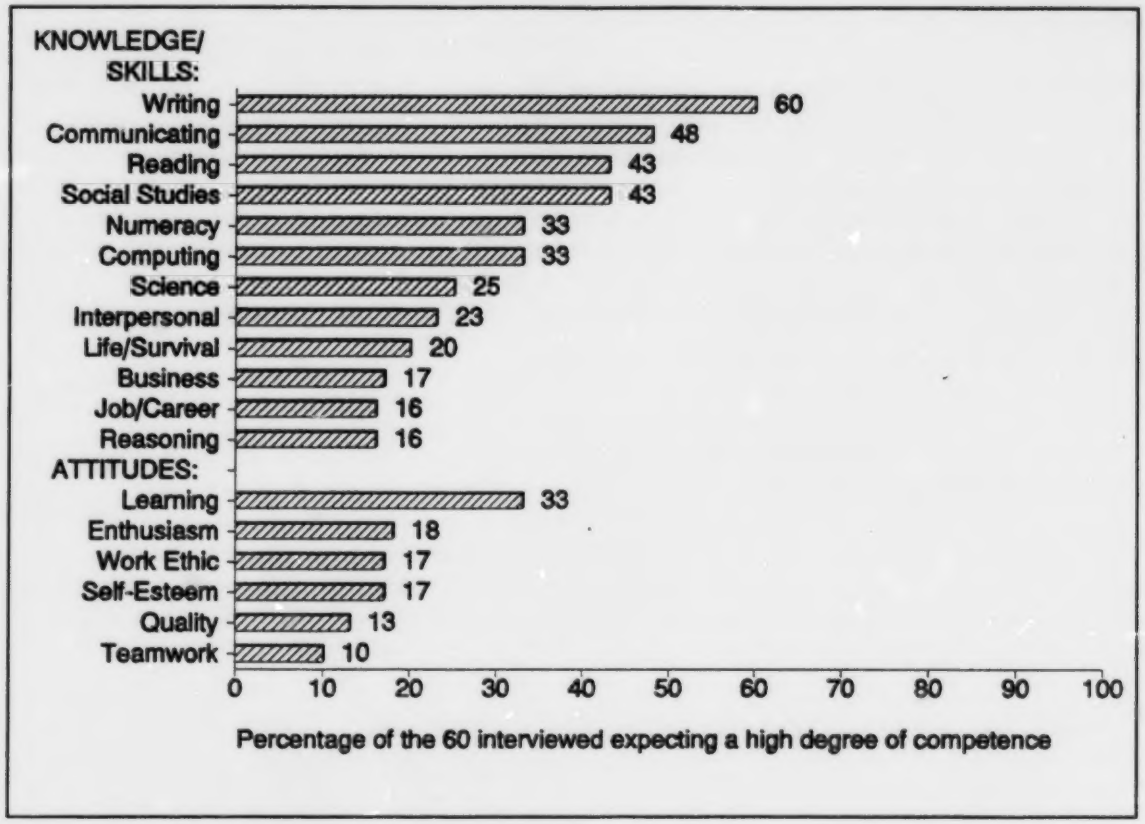

Figure 2
Expectations for High School Graduates' Knowledge, Skills and Attitudes

attitude - 18%), *work ethic* (including self-sustenance and work discipline - 17%), *self-esteem* (including sense of purpose, ambition, pride and confidence - 17%), *quality* (the importance of the customer and the quality movement - 13%) and *teamwork* (10%).

Summary of Expectations

With respect to *knowledge*, many executives believe mathematics, the sciences and history/geography to be the most important. English, grammar and literature were seen in the main to be vehicles for gaining literacy skills.

In the *skills* area, executives stressed the importance of the "three Rs" - the need for graduates to have good basic skills in reading, writing and calculating (including computer literacy) as a foundation for all other learning, including job training. Many had the impression that the three Rs were being de-emphasized in order to broaden the choices offered to students.

Communications and interpersonal skills were also seen as essential to success on the job, particularly at the management level. Most believe that the non-school environment is just as important as schooling in developing these skills, but that the school could take a greater

role by emphasizing oral presentations to the class and working in student teams (as long as each student contributes meaningfully).

Many executives in one way or another indicated the importance they place on the student developing problem solving, thinking and reasoning skills. They believe that with rapid and frequent changes in the business environment, the knowledge base is always out-of-date and only these cognitive skills equip the employee to deal with such change.

In the *attitudes* area, work ethic, self-esteem, confidence and the desire to work and learn were frequently mentioned as being a necessary product of the education system. It is felt these attitudes are gained primarily through high standards, being required to meet deadlines, being rewarded for "going the extra mile", and learning that accomplishing meaningful work is its own reward. A good work ethic, more than any other attitude, is seen to be critical to success in the world of work.

Findings - II. Senior Executives' Areas of Concern - Knowledge, Skills and Attitudes of Alberta Graduates

When executives were asked about satisfaction levels with knowledge, skills and attitudes most preferred to identify areas of concern. Figure 3 presents the areas of concern for knowledge and skills. The shaded areas contain selected quotations from senior executives interviewed.

Literacy (Reading and Writing)

Twenty-seven executives (45% of those interviewed) believe that high school graduates (and high school dropouts) have deficiencies in their writing skills (including composition, grammar and spelling).

Nine executives (15%) see deficiencies in reading comprehension, and cite the importance of understanding safety and other instructions from superiors and others. Many blame television as well as schooling for this concern.

Communications

Young people don't understand that effective communications require that you listen to another and make yourself understood. They are rewarded in school for impressing...with their vocabulary rather than ability to communicate ideas clearly.

Twenty-one executives (35%) believe young people to be deficient in communication skills and that graduates should be better at listening, understanding and making themselves understood. Eight per cent believe young people communicate better than they ever have.

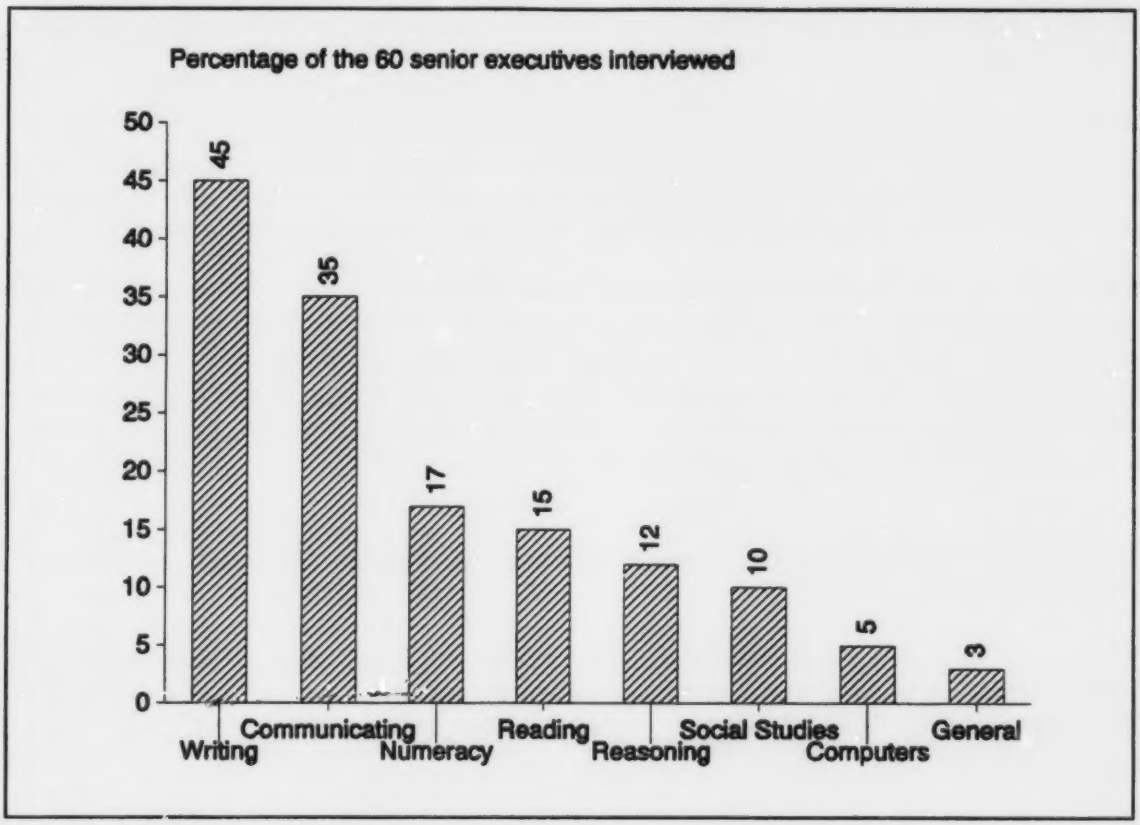

Figure 3
Areas of Concern - High School Graduates' Knowledge and Skills

Numeracy

Ten executives (17%) believe there are deficiencies in understanding numbers and performing calculations, while 5% see an improvement. Those concerned cite examples of employees not appreciating the relationships of numbers to one another. Many believe that the use of calculators is to blame.

Reasoning Ability

Seven executives (12%) see deficiencies in graduates' problem solving, thinking and reasoning skills, although these concerns apply equally to their middle managers. Many attribute their concern to the tendency for education to concentrate on the "what" rather than the "how", in other words toward knowledge (which is quickly dated) and away from the process (the skill), which teaches how to deal with the unpredictable.

Social Studies

Six executives (10%) believe knowledge of world events, history, geography, government and politics to be deficient, while 5% find this satisfactory. Many believe an understanding of our provincial and federal governments and Canada's place in the world to be essential to success in business.

Automation

Six executives (10%) think computer skills are better than ever, while three executives (5%) are surprised to see deficiencies in computer skills. About one third of the executives interviewed have computers on their desks, but most believe that in the future computer literacy will be absolutely essential to business success. Many stated their belief that feeling comfortable about automation must come mostly from schooling. With the ease in learning to use computers these days however, some are not convinced that it's necessary to take a lot of school time to teach automation.

Young people coming into our business today, whether high school graduates or with some post-secondary training are better informed than they've ever been... They can also converse better and have a better feel for politics and the environment - and they have opinions to express.

General Skills

Seven executives (12%) believe that general skills have improved or are satisfactory, while two executives (3%) stated their belief that skills generally have deteriorated.

Attitudes

Figure 4 presents the areas of concern cited for attitudes.

Work Ethic

Eighteen executives (30%) believe young people have a poor work ethic, while only three executives (5%) believe this has improved over the years. Many attribute their concern to most young people never having faced hardship or having to learn the importance of a secure job and how to keep it.

Another related concern may be the statement by a number of executives that many young people do not seem to realize that their actions have consequences: that if they study, they will pass and that if they work hard, they will succeed. Most executives believe that a good work ethic is something that can be enhanced through schooling.

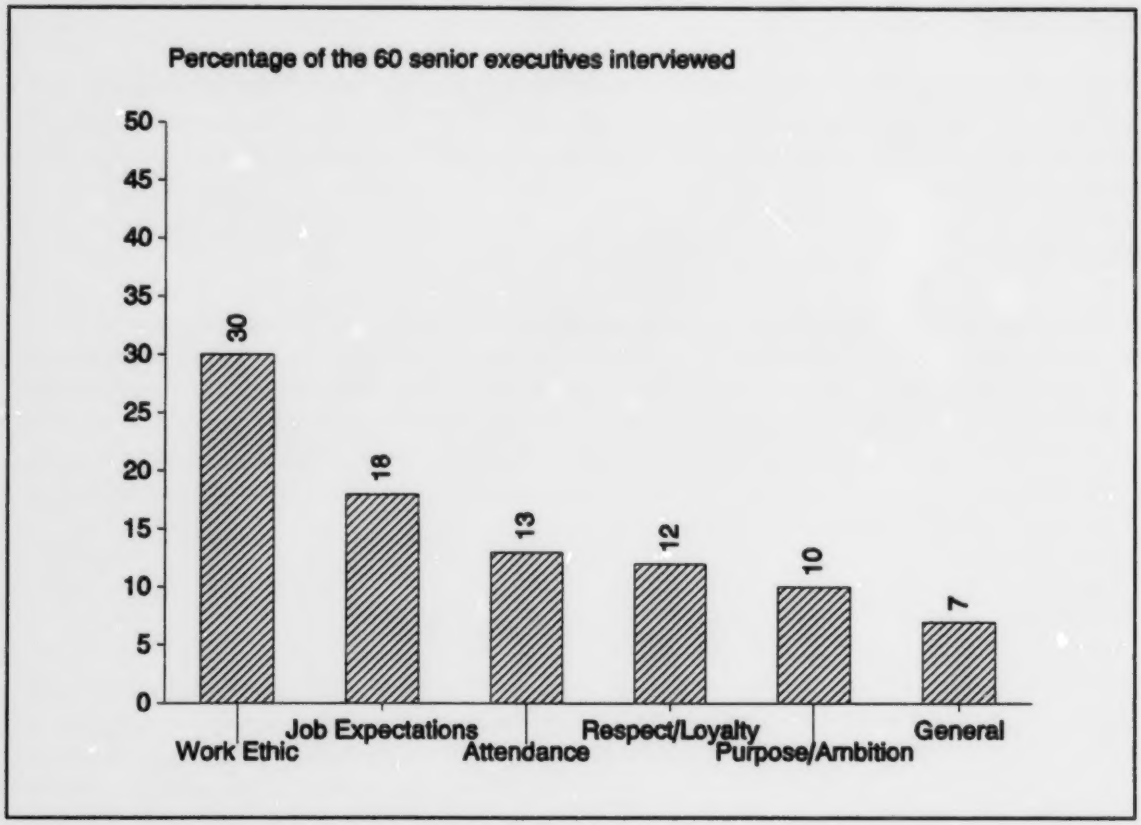

Figure 4
Areas of Concern - High School Graduates' Attitudes

Graduates' Expectations of the Job

Eleven executives (18%) believe that young people have unrealistic expectations when they take their first full-time job. Examples were cited of new employees (or applicants) expecting high pay for little work and being surprised at the standards of work required of them.

Attendance and Punctuality

Eight executives (13%) see a deterioration in the sense of responsibility in young people toward attendance, punctuality and a general desire for more leisure.

Respect for Others

Seven executives (12%) stated their belief that young people do not have sufficient respect for their teachers and for others in authority, and that they don't appreciate what they can learn from someone with many more years' experience. This concern is attributed in the main to what they see as a decline in discipline exercised in the schools and the more informal teaching styles of the teachers. A number cited the casual dress and manner of

teachers as partly to blame along with poor examples set by parents, many of whom are not around enough to have an impact on their children.

Sense of Purpose, Ambition

Six executives (10%) expressed their concerns about a need for a greater sense of purpose and motivation in young people. Many executives believe that graduates (and high school students) are less ambitious than previously. They attribute this to a growing feeling in graduates that if things don't work out, government support systems or parents will be there to help.

General Attitudes

Ten executives (17%) believe that overall attitudes have improved or are satisfactory. Four executives (7%) believe general attitudes have deteriorated.

Attitudes have also improved since we stopped treating everyone as a "winner". If everyone is a winner, no one is a winner. At one time no one failed in grades 1 through 6. Kids seem to be more aware now that they must compete.

The young people I see are great; the ones I read about in the paper are not so great.

Findings - III. Senior Executives' Views on Educational Areas Requiring Improvement

Figure 5 presents the percentages of executives commenting on other educational areas which in their view require improvement.

With respect to these findings, senior executives are most concerned about:

- the degree to which students are *streamed* (although there is no consensus as to whether students should be streamed earlier, later or not at all);
- the need for better *standards* so that employers can be confident that those hired have the requisite knowledge and skills;
- the extent of program *choice* available to students; most believe there is too much choice and that the basics are not sufficiently stressed;
- the need for more *discipline* in the classroom, and for principals and parents to support teachers who try to implement more discipline;

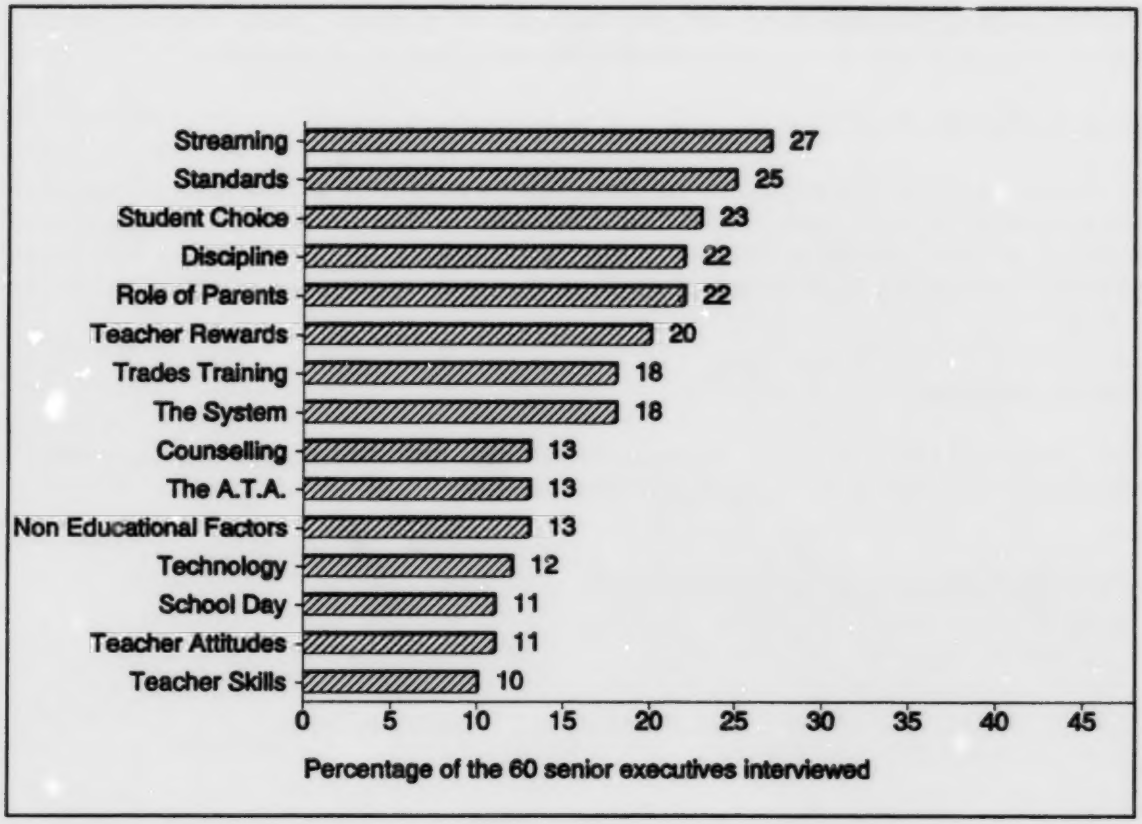

Figure 5
Other Issues

To make a change to a more academic, disciplined system, we must start at the top - meet with parents, change the educational philosophy, change the education system, then change the teachers, then teach the children there are consequences to their actions.

- the need for *parents* to be more aware of their responsibility for their child's education;
- the need to *reward teachers* who are performing well and deal with those who are not meeting the standard.
- *trades training* - the amount of emphasis on the "university stream" in high school; trades training is viewed as inferior to a profession by students and teachers.

In each of these areas, at least eleven executives (18%) interviewed expressed their interest and concern.

Findings - IV. Senior Executives' Views on How Business Should Be Involved

Twenty-eight executives (47%) stated that their organizations are either going into (mainly career days) or should be going into the schools to expose students to business matters.

Nineteen executives (32%) indicated that their organizations are either bringing students or should be bringing students into the work place for experience and exposure to business and the world of work.

Seventeen executives (28%) indicated that business and education must cooperate more effectively.

Seven executives (12%) believe that formal business/education councils or boards should be set up to further common interests.

Six executives (10%) had views on how to make schooling interact better with the content and organization of work.

Five executives (8%) indicated that their organizations conduct educational programs which might be described as remedial or compensatory for perceived deficiencies in schooling.

Five executives (8%) indicated that their organizations provide direct financial assistance to post-secondary institutions or students through bursaries, scholarships, chairs, or program funding. Only one indicated similar funding might be appropriate or possible at the secondary school level.

Many executives stressed the benefits that will accrue to the education system and to their organizations by having their views solicited through this survey. Many requested copies of the summarized results.

Conclusions

I want more than a conversation. What is the next step? Will there be an action plan developed within a year?

Business executives in Alberta are most concerned about graduates' and young peoples' abilities in *writing, communicating, numeracy, reading,* and the apparent lack of a good *work ethic* in many. They are much less concerned (or actually satisfied) with abilities and attitudes in other areas.

Recommendations

1. That the department meet with the senior executives interviewed to discuss the study findings and develop a joint action plan for the required changes. Prior to this meeting, the senior executives should consider how the private sector might articulate

its needs more fully and communicate these needs and employment projections to the department.

2. That a formal survey be conducted (questionnaire) of senior executives in Alberta to validate the study conclusions and seek the input of a much larger group of executives, including those in the public sector, the not for profit sector, and post-secondary institutions.

3. That a special group be formed for each major area of concern consisting of representatives of Alberta Education, school boards and senior executives who express an interest in participating. These groups should report to the Minister of Education and recommend on:

   - what changes should be made, and how, to make schooling more relevant to the world of work;

   - priorities for change and an action plan.

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ACKNOWLEDGEMENTS

We would like to thank the 60 senior executives listed in Table 1 who gave of their valuable time to be interviewed for the study. We are also indebted to the members of the Private Sector Senior Executive Survey Steering Committee for their guidance during the project:

Dr. Nelly McEwen (Chair), Corporate and Fiscal Planning
Dr. Merv Thornton, Curriculum
Dr. Russ Wiebe, Edmonton Regional Office
Mr. Warren Young, School Business Administration
Mr. Pat Ehman, Corporate and Fiscal Planning

ABSTRACT

The purpose of the study was to determine the strengths and weaknesses of the education system in Alberta from the perspective of senior executives in the private sector. The Minister of Education solicited the views of Alberta commerce and industry on the following:

- the current strengths of the education system;
- necessary improvements to educational programs and services;
- the knowledge, skills and attitudes necessary for Alberta graduates to meet the challenges and opportunities of a changing world.

The project was a small, exploratory pilot survey of the perceptions of Alberta leaders in order to provide direction and a base for further study.

The methodology consisted of interviews with 60 senior executives in a variety of industries and geographic areas of the province. The findings were analyzed in the following categories: expectations, satisfaction levels, problem areas, potential solutions, other comments.

The results indicated that business executives expect Alberta graduates to have a high degree of competence in *writing, reading, communicating* and *social studies* subjects and to have good attitudes with respect to *learning, enthusiasm, work ethic and self-esteem*. These executives are most concerned about graduates' and young peoples' abilities in *writing, reading, communicating* and *numeracy*, and the apparent lack of a good *work ethic* in many young people. Generally, they are much less concerned (or actually satisfied) with abilities and attitudes in other areas.

With respect to other findings, it is clear that senior executives are most concerned about:

- the degree to which students are *streamed* (although there is no consensus as to whether students should be streamed earlier, later or not at all);

- the need for better *standards* so that employers can be confident that those hired have the requisite knowledge and skills;

- the extent of program *choice* available to students; most believe there is too much choice and that the basics are not sufficiently stressed;

- the need for more *discipline* in the classroom, and for principals and parents to support teachers who try to implement more discipline;

- the need for *parents* to be more aware of their responsibility for their child's education;

- the need to *reward teachers* who are performing well and deal with those who are not meeting the standard.

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INTRODUCTION

Purpose of the Study

If young people are to be prepared for the future and to get the education they need to be successful citizens, entrepreneurs and employees, Albertans need to know the strengths and weaknesses of the education system. As part of this process, the Minister of Education solicited the views of Alberta commerce and industry.

In April 1991 the Minister sent letters to senior executives in 74 Alberta companies and organizations requesting their participation in addressing the following issues:

- the current strengths of the education system;
- necessary improvements to educational programs and services;
- the knowledge, skills and attitudes necessary for Alberta graduates to meet the challenges and opportunities of a changing world.

Specifically, the senior executives were asked to address the following questions in an interview format:

- What are your expectations of our grade 12 graduates?
- What knowledge, skills and attitudes do you believe are necessary for them to be successful citizens, entrepreneurs or employees?
- How satisfied are you with their current level of knowledge, skills and attitudes?
- What needs to be improved in the educational system?
- How can business and industry become more involved?

The project was a small, exploratory pilot survey of the perceptions of Alberta leaders in order to provide direction and a base for further study. The Minister's letter is presented in Appendix 1.

Approach to the Study

It was decided that executives from relatively large employers in Alberta's private sector covering a wide cross section of industries should be interviewed:

- Commercial - retail, wholesale, real estate, tourism and hospitality, communications and the service industries.

- Industrial - energy, manufacturing and processing, transportation, construction and development, agriculture and utilities.

- Professional and Financial - medicine, law, accounting, architecture, engineering, insurance, banking and other financial institutions.

It was believed that firms from these sectors and industries would provide a rich and varied sampling of the views of business in Alberta. Care was taken to ensure that organizations were selected from across the province - Edmonton, Calgary, central and northern Alberta. The geographic area included Fort McMurray in the north and Banff in the west.

To ensure a consistent approach between the two researchers/interviewers, three preliminary interviews were conducted with the researchers working together. The interview approach was developed after a discussion of the results of these interviews. It was decided that the best results would be achieved by essentially leaving the discussion topics to the senior executive - a very open-ended approach.

Scope of the Study

Opinion was sought from the highest levels of business. The Minister's letters were personally addressed to senior executives (chief executives, general managers, senior vice presidents) in each business rather than to managers at the personnel or middle management level. Although it is likely that personnel or operating department managers have more direct contact with applicants and young workers, it is believed that senior management's views generally are broader and therefore more pertinent to the study purposes. In addition, it is believed to be more likely that the views of senior executives have a stronger impact on the employment and training policies and practices of the organization.

Limitations

It should be noted that because of the open-ended nature of the interviews, no effort was made to ensure all topics were covered with all executives. Therefore, the number of senior executives who had expectations and the percentages of those who stressed one facet over another indicate what the executives felt were the most important issues. A formal survey using a detailed questionnaire would be necessary to determine how all executives felt about each issue. Please refer to Recommendation 1 in the final section.

It must be recognized that the study results are based on the perceptions and opinions, however acquired, of only 60 senior executives. Many of these executives have lived in many provinces of Canada, the United States and overseas; their views are therefore not limited to Alberta. To the extent possible, however, the expectations and satisfaction levels expressed pertain to the Alberta secondary school system.

It should also be noted that most of the executives are not involved directly in the hiring of high school graduates, and many have very little business contact with recent graduates. In these cases their views are an amalgam of personal experience with children or grandchildren, and opinion derived from business acquaintances, other associates and perhaps from the media.

STUDY DESIGN, METHODOLOGY AND ANALYSIS

Study Design and Sources of Data

Organizations headquartered in Alberta were selected to the extent possible consistent with the need to canvass many different industries. For a small number of industries, organizations headquartered elsewhere had to be selected.

Organizations, addresses and the names of senior executives were selected by reference to three business publications:

VIP Business Contacts Directory published by VP Marketing Inc.;

Canadian Key Business Directory published by Dun & Bradstreet Canada Ltd.;

Alberta Business - the July/August 1990 issue (The Alberta Top 100).

These references were used to identify relatively large organizations, many headquartered in Alberta, in a variety of industries and geographic locations. Edmonton and Calgary predominate as the location because most large Alberta organizations have their headquarters in one of these two cities.

Of the 74 organizations and executives from whom an interview was requested, 60 senior executives agreed to participate. This represents 81%, which is considered very good in view of how busy these senior executives are. In many cases where an interview did not take place, the executive or his secretary expressed regret at being unable to find the time. We have no reason to believe the views of the executives who were not interviewed would be materially different from those interviewed.

Of the 60 organizations interviewed, 19 (32%) were in the commercial sector, 27 (45%) were in the industrial sector, and 14 (23%) were in the professional and financial sector.

Table 1 is a list of the organizations, the executives, and the titles of those interviewed. Where organizations chose to have more than one of their senior executives interviewed, the group is counted as one and their views were collected and have been reported as one.

Table 1

Executives Interviewed

Organization	Name	Title
Commercial:		
The Coast Terrace Inn	Werner Simm	General Manager
Marlin Travel	Gary Elliott	Executive Vice President
Royal Glenora Club	George Pinches	General Manager
Japan Airlines	Ron Symic	Regional Manager
Mark's Work Wearhouse Ltd.	Mark Blumes	President & CEO
Edmonton Northlands	Dale Cole	President
Alberta Motor Association	George MacDonald	President
Marlborough Inn	Chung Young	General Manager
MacDonald's Restaurants	Gary Pasley	President, Southern Alberta
Royal LePage Real Estate	Ken Shearer	VP & Regional Manager
Canadian Airlines International Inc.	Kevin Jenkins	President
Greyhound Lines of Canada Ltd.	Dick Huisman Seoras Adams	President & CEO Vice President HR
Canada Safeway Limited	Henry Rempel Alan Konkin	Division Manager HR Manager
Sunwapta Broadcasting	Jack Little Brian Bolli Fred Vos Guy Slavik	Station Manager General Manager Production Manager Director, HR
Time Air Corporation	Richard Barton	Executive VP & Chief Operating Officer

Table 1

Executives Interviewed

Organization	Name	Title
Horne & Pitfield Foods Limited	Wayne Wagner David Mellor Gerry Hayes	President & CEO VP Finance Director, Personnel
Canadian Pacific Hotels Ltd.	Ted Kissane	Vice President & General Manager
Miller Office Group	Jack Jeffrey	Controller
Trans-Mutual Truck Lines Ltd.	Sherry Ruteck	General Manager
Industrial:		
Celanese Canada Inc.	Ian Brownlie	VP & General Manager
Alberta Energy Co. Ltd. (Calgary)	David Mitchell	President & CEO
BP Canada Inc.	David Claydon	President & CEO
PCL Constructors Inc.	Joseph Thompson	Vice Chairman & CEO
Esso Resources Canada Ltd.	Douglas Baldwin	President & CEO
Home Oil Company Ltd.	David Powell	President & CEO
Norcen Energy Resources Ltd.	Barry Cochrane	President & CEO
Suncor, Inc. (Oil Sands Group)	Mike Supple	Executive Vice-President
CANA Construction Co. Ltd.	J. D. Simpson	President
Syncrude Canada Ltd.	Eric Newell	President & CEO
Coram Construction Ltd.	Brian Klyberg	President
Bantrel Inc.	Paul Lovell	President & CEO
Alberta Energy Company Ltd.(Edmonton)	Frank Proto	Senior Vice President
SMED Manufacturing Inc.	Mogens Smed	President

Table 1

Executives Interviewed

Organization	Name	Title
Canadian Utilities Ltd.	John Wood	President
TransAlta Utilities Corp.	Ken McCready M.J. Halpen Robert Westbury	President & CEO Vice President HR Vice President
Alberta Wheat Pool	Donald Heasman	CEO
Emerald Oilfield Construction Ltd.	John Nielsen	President
Dow Chemical Canada Inc.	Doug Cattran	Vice President
Parkland Industries Ltd.	Jack Donald	President
Central Alberta Dairy Pool	Alvin Johnstone	General Manager
Lilydale Cooperative Ltd.	Henry Van Zeggelaar	General Manager
Princeton Developments Ltd.	Janice Rennie	Vice President
Novacor Chemicals Ltd.	John Feick	President
AEC Oil & Gas Ltd.	Gwyn Morgan	President
Sun Ice Inc.	Victor Rempel	Executive Vice President
Spruce Meadows	Margaret Southern	President
Professional and Financial:		
Stanley Engineering	Ron Triffo	President
North West Trust	Gary Campbell	Chairman & CEO
UMA Engineering	Al Pasini	President & CEO
Reed Stenhouse	David McLauchlin	Senior VP & Branch Manager
Milner Fenerty Solicitors	Timothy Rendell	Chief Operating Officer
PCL Braun-Simons Ltd.	Ronald Greenlay	President & CEO
Partec Lavalin Inc.	Donald Park	President & CEO
Cohos Evamy Partners	Martin Cohos	Partner

Table 1

Executives Interviewed

Organization	Name	Title
Northwest Drug Co. Ltd.	Brian Jackson	VP & General Manager
Alberta Blue Cross	George Ward	President & CEO
Peat Marwick Thorne	Hugh Bessell	Partner
Howard, Mackie, Solicitors	Allen Nielson	Managing Partner
Alberta Stock Exchange	Thomas Cumming	President & CEO
Credit Union Central	James Scopick	CEO

Figure 1 presents the organizations visited by type.

Methodology

Once the three preliminary interviews were completed and the interview approach finalized, one consultant interviewed each executive or group of executives (where organizations chose to have more than one representative) at the executive's place of business. Interviews lasted from one to two hours, with an average of about one and one-half hours. The length of the interview was determined by the executive.

Interviews were very open-ended, generally following the brief agenda provided in the Minister's letter, but with no special effort to ensure all items were covered; the latter approach would have been extremely difficult with the time constraints and inappropriate in a setting where the executives' strongest views are considered most important. Executives were encouraged to speak their minds on whatever they felt was most pertinent to the purpose of the study. Many chose to concentrate on their expectations of and degree of satisfaction or concern with secondary school students' and graduates' abilities, others on their perceptions of the strengths and weaknesses of the education system, others on how business should be involved and what role it should play. Many covered all of these topics to one degree or another.

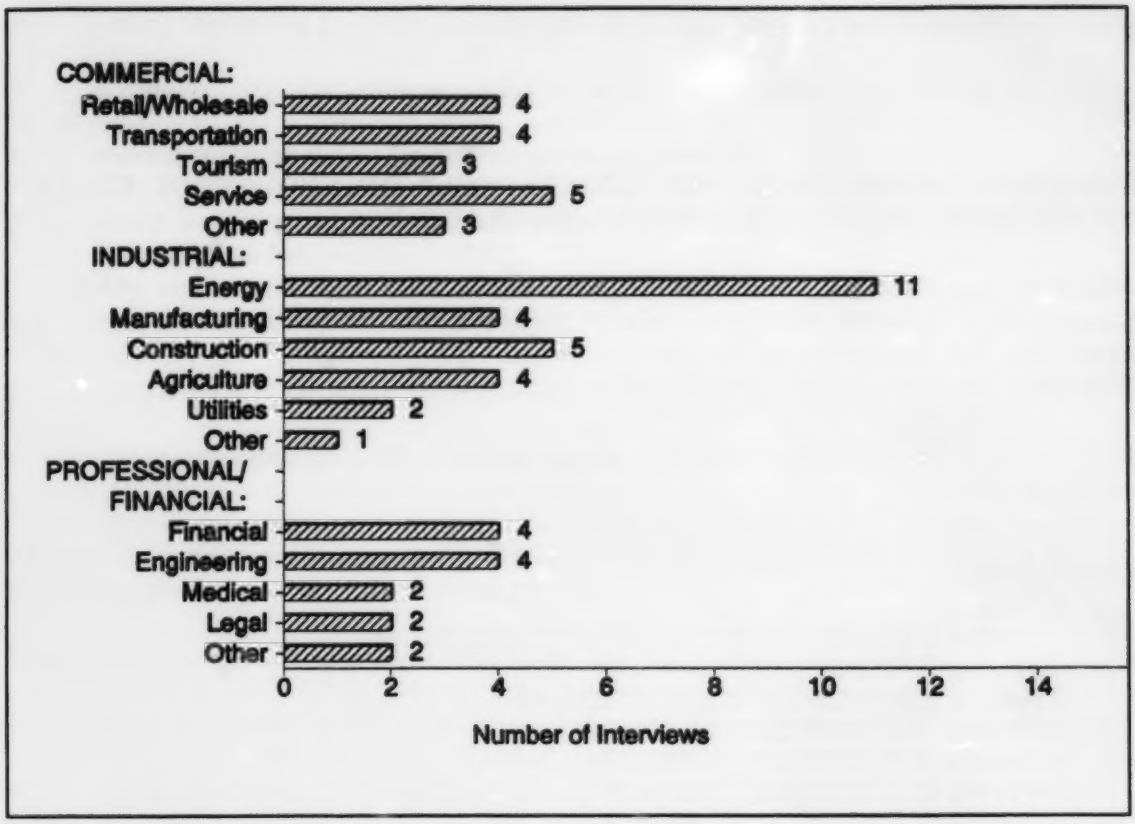

Figure 1
Type of Organization Visited

In tabulating the data, efforts were made to preserve the language and spirit of the discussions by using the "thick description" approach. Many direct quotations were retained, and although most of the comments are paraphrased, care was taken to maintain the integrity of the executives' intent. Much of this thick description has been used in this report.

FINDINGS - I. SENIOR EXECUTIVES' EXPECTATIONS - THE KNOWLEDGE, SKILLS AND ATTITUDES NECESSARY FOR ALBERTA GRADUATES

Many executives preferred not to focus on their expectations of graduates, but rather to discuss areas of concern relating to Alberta graduates' knowledge, skills and attitudes necessary to meet the challenges and opportunities of a changing world. Many felt that their expectations could be derived from the latter if necessary.

Figure 2 details the expectations for high school graduates cited by those executives who chose to do so.

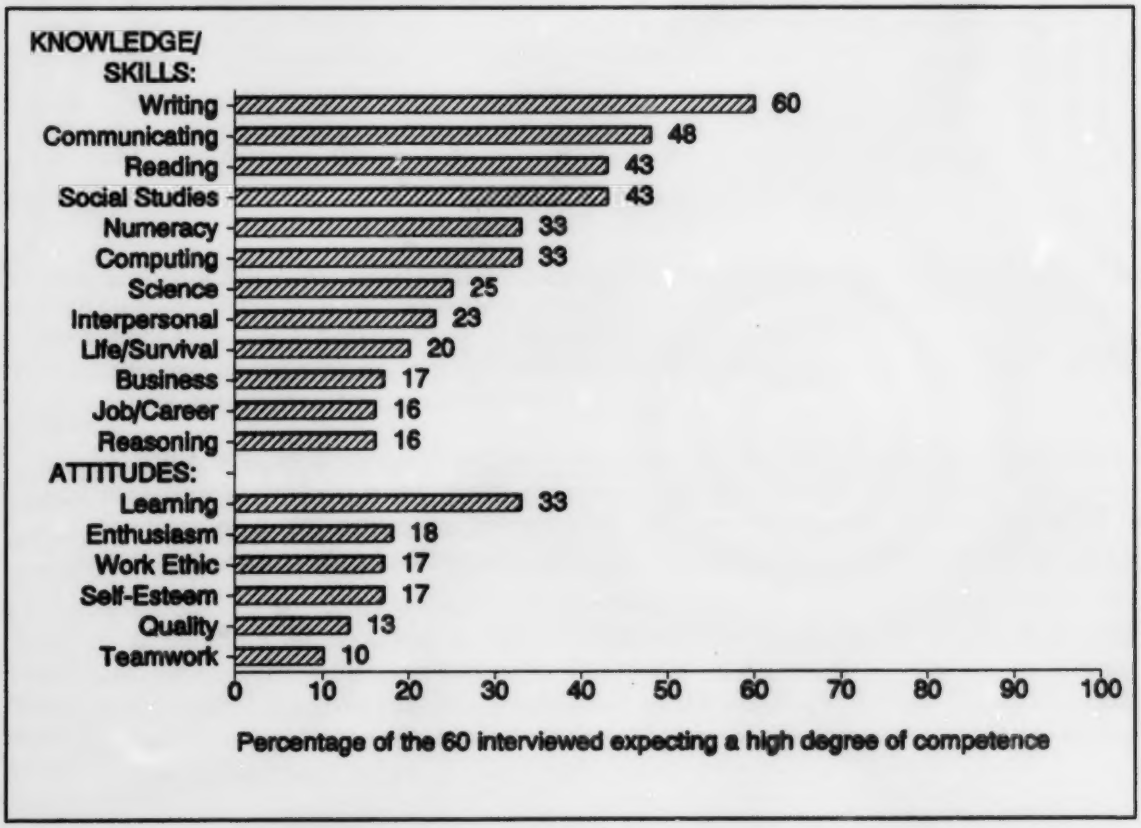

Figure 2
Expectations for High School Graduates' Knowledge, Skills and Attitudes

Figure 2 shows that executives interviewed stated that they expected high school graduates (and young people with some secondary schooling) to demonstrate a high degree of competence in the following areas:

- *writing* (including grammar, English and spelling - 60% of those interviewed);
- *communicating* (including speaking, listening and understanding - 48%);
- *reading* comprehension (including literature - 43%);
- *social studies* (including government, politics, Canada, world events, history, geography and citizenship - 43%);
- *numeracy* (mathematics and arithmetic - 33%);
- *computing* and keyboard skills (33%);
- the *sciences* (general, chemistry and physics - 25%).

Other notable skills cited were *interpersonal* (23%), *life/survival* (20%), *business* (including finance, economics and budgeting - 17%), *job/career* (including interview skills - 16%) and *reasoning*, problem solving and thinking (16%).

With respect to expectations for attitudes, the most common areas cited were:

- *learning to learn*, desire to learn and learning for life (33%);
- *enthusiasm* (including a positive, friendly attitude - 18%);
- *work ethic* (including self-sustenance and work discipline - 17%);
- *self-esteem* (including sense of purpose, ambition, pride and confidence - 17%);
- *quality* (the importance of the customer and the quality movement - 13%);
- *teamwork* (10%).

Summary of Knowledge Expectations

With respect to knowledge, many executives believe mathematics, the sciences and history/geography to be the most important. English, grammar and literature were seen in the main to be vehicles for gaining literacy skills not valued as knowledge in themselves.

> "They need a good basic education - reading, writing, arithmetic, basic physics and chemistry. These are the foundation for all other learning. This would be my core curriculum."

Summary of Skills Expectations

In the skills area, executives stressed the importance of the "three Rs" - the need for graduates to have good basic skills in reading, writing and calculating (including computer literacy) as a foundation for all other learning, including job training. Many had the impression that the three Rs were being de-emphasized in order to broaden the choices offered to students.

Communications and interpersonal skills were also seen as essential to success on the job, particularly at the management level. Most believe that the non-school environment is just as important as schooling in developing these skills, but that the school could take a greater role by emphasizing oral presentations to the class and working in student teams (as long as each student contributes meaningfully).

> "... communication and social skills are not deficient, but we must continue to emphasize these...Communication skills in the future will be more important; young people must be able to converse and be comfortable with our customers."

Many executives in one way or another indicated the importance they place on the student developing problem solving, thinking and reasoning skills. They believe that with rapid and frequent changes in the business environment, the knowledge base is always out-of-date and only these cognitive skills equip the employee to deal with such change.

> "(They must be able) to think and realize that education is a life-long practice. (They must be able) to reason, think things through, draw conclusions. These things become more important as we try to empower our employees - coaching instead of supervising."

Summary of Attitudes Expectations

In the attitudes area, work ethic, self-esteem, confidence and the desire to work and learn were frequently mentioned as being a necessary product of the education system. It is felt these attitudes are gained primarily through high standards, being required to meet deadlines, being rewarded for "going the extra mile", and learning that accomplishing meaningful work is its own reward. A good work ethic, more than any other attitude, is seen to be critical to success in the world of work.

> "It is important to get across the idea that life's benefits will not be handed to you on a silver platter, and that it is mental, not physical effort that will lead the way. We need to prepare people better for what comes later."

> "Improving self-esteem is fine, but people recognize false praise. We must praise real accomplishment."

Figures 3, 4 and 5 present these expectations by major industry group. These figures are interesting in that they show that the Commercial group had disproportionately high expectations for writing skills and enthusiasm, the Industrial group for computing, science, business and learning, and the Professional/Financial group for social studies topics, self-esteem and teamwork. The retail sector (part of the Commercial group) was particulary vocal about the need for a positive, enthusiastic manner when dealing with the public.

Appendix 2 provides further detail on expectations for knowledge, skills and attitudes.

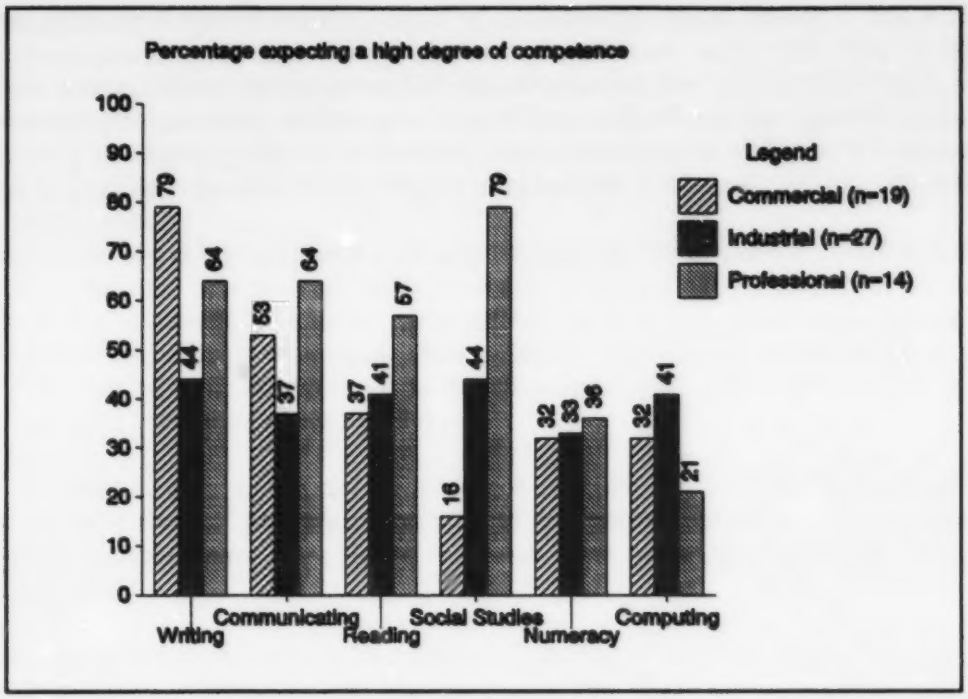

Figure 3
Expectations for High School Graduates' Knowledge and Skills

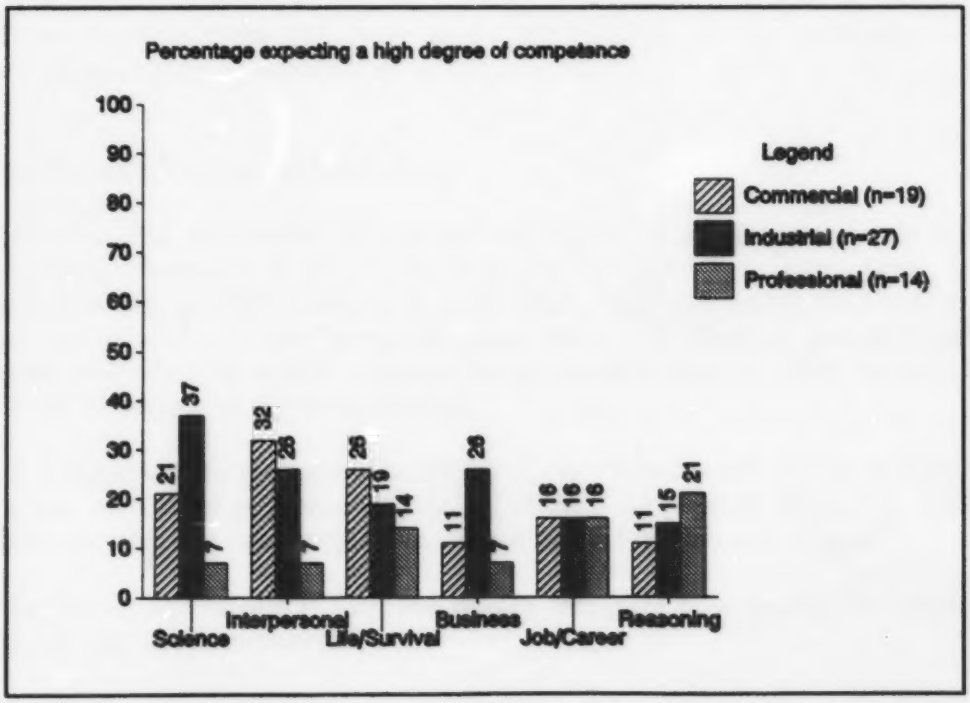

Figure 4
Expectations for High School Graduates' Knowledge and Skills

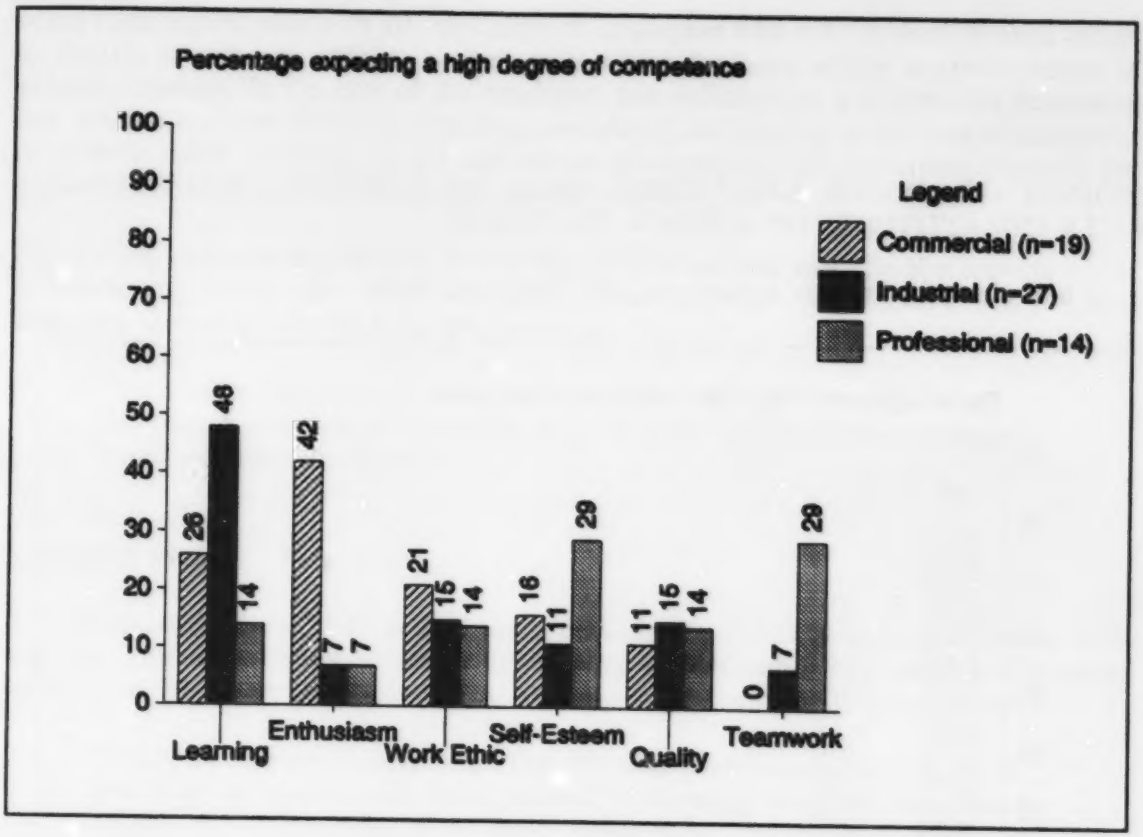

Figure 5
Expectations for High School Graduates' Attitudes

FINDINGS - II. SENIOR EXECUTIVES' AREAS OF CONCERN - KNOWLEDGE, SKILLS AND ATTITUDES OF ALBERTA GRADUATES

Figure 6 presents the areas of concern for knowledge and skills.

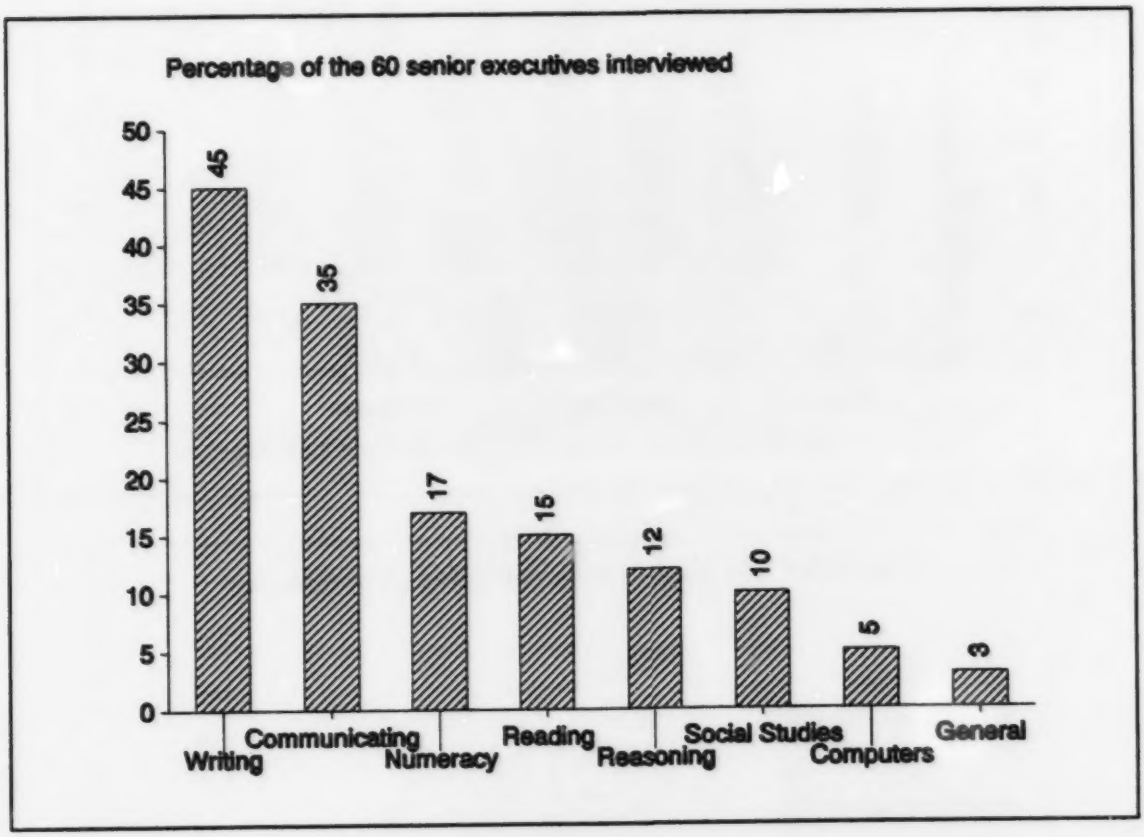

Figure 6
Areas of Concern - High School Graduates' Knowledge and Skills

Literacy (Reading and Writing)

Twenty-seven executives (45% of those interviewed) believe that high school graduates (and high school dropouts) have deficiencies in their writing skills (including composition, grammar and spelling).

Many cited experiences with job applicants or employees who are required to write letters or reports to company officials or customers where the basic ability to communicate in writing is lacking. In the case of the employee, this deficiency is a serious and frustrating inconvenience to the company, affecting productivity and leading to the loss of customers or to poor public relations. In the case of the job applicant, this deficiency prevents the individual from being considered seriously for employment.

Fifteen per cent see deficiencies in reading comprehension, and cite the importance of understanding safety and other instructions from superiors and others. Many blame television as well as schooling for this concern.

> " Reading, writing and general communication skills (written and verbal) are deficient. Young people are unable to speak and write succinctly and cogently. Parents are also to blame."

Communications

Twenty-one executives (35%) believe young people to be deficient in communication skills and that graduates should be better at listening, understanding and making themselves understood. Eight per cent believe they communicate better than they ever have.

> "Young people don't understand that effective communications require that you listen to another and make yourself understood. They are rewarded in school for impressing...with their vocabulary rather than ability to communicate ideas clearly".

Numeracy

Ten executives (17%) believe there are deficiencies in understanding numbers and performing calculations, while 5% see an improvement. Those concerned cite examples of employees not appreciating the relationships of numbers to one another. Many believe that the use of calculators is to blame. They agree with their use as tools, but believe graduates have never thoroughly learned the thinking behind the calculations, which in business is very important.

> "Young people don't have a grasp for numbers - multiplying, dividing, percentages, roughing out in their heads which proportions are important and reasoning through what the numbers represent and imply. In addition, they will hand you their figures and let you interpret them...with no analysis or conclusions."

Reasoning Ability

Seven executives (12%) see deficiencies in graduates' problem solving, thinking and reasoning skills, although these concerns apply equally to their middle managers. Many attribute their concern to the tendency for education to concentrate on the "what" rather than the "how", in other words toward knowledge (which is quickly dated) and away from the process (the skill), which teaches how to deal with the unpredictable. Some admit however, that this frustration may be because as senior executives they have time to think about "the big picture" while subordinates have task-oriented deadlines which they must deal with, and are therefore more narrowly focused. In spite of this they believe educators should learn to teach and test understanding and reasoning as well as they do knowledge of facts.

> "People seem to resist thinking, for example in our strategic planning; they have poor problem-solving skills. More and more our skills are based on our knowledge foundation. There are too many specialized courses."

Social Studies

Six executives (10%) believe knowledge of world events, history, geography, government and politics to be deficient, while 5% find this satisfactory. Many believe an understanding of our provincial and federal governments and Canada's place in the world to be essential to success in business.

> "General knowledge seems to be lacking, (including) a grasp of geography - Canada and the world. Grounding here was previously stronger. (This is) important because it gives them confidence which is otherwise stunted and tentative, and skills/attitudes suffer."

Automation

Six executives (10%) think computer skills are better than ever while three executives (5%) are surprised to see deficiencies in computer skills. About one third of the executives interviewed have computers on their desks, but most believe that in the future computer literacy will be absolutely essential to business success. Many stated their belief that feeling comfortable about automation must come mostly from schooling. With the ease in learning to use computers these days however, some are not convinced that it's necessary to take a lot of school time to teach automation.

> "We are finding, with automation, that young people fit into our system better than older employees who have trouble adapting from the old manual system to the new automated systems. All our jobs, from cashier, courtesy clerk to warehouse stocker are more complex because of the automation and the extra time they now have to be more public relations oriented."

General Skills

Seven executives (12%) believe that general skills have improved or are satisfactory, while two executives (3%) stated their belief that skills generally have deteriorated.

> "Young people coming into our business today, whether high school graduates or with some post-secondary training are better informed than they've ever been... They can also converse better and have a better feel for politics and the environment - and they have opinions to express."

Business and Finance (not graphed)

Ten per cent were concerned about graduates' knowledge of business and finance. Some regretted that academic students do not get basic business courses such as accounting and marketing.

> "Most lack business and financial moxie; they are unable to manage their own finances; this is part of the reason for the high personal bankruptcy rates".

> "(They) lack skills in personal budgeting, tax preparation, and the cost of credit - credit cards."

Appendix 3 provides further detail on areas of concern for knowledge and skills.

Attitudes

Figure 7 presents the areas of concern cited for attitudes.

Work Ethic

Eighteen executives (30%) believe young people have a poor work ethic, while only three executives (5%) believe this has improved over the years. Many attribute their concern to most young people never having faced hardship or having to learn the importance of a secure job and how to keep it. Interestingly, a number exempted people with a rural background from this concern, with the belief that doing chores and otherwise contributing to the welfare of the family farm instills a lifelong understanding of the importance of hard work.

Another concern related to work ethic may be the statement by a number of executives that many young people do not seem to realize that their actions have consequences: that if they study, they will pass and that if they work hard, they will succeed.

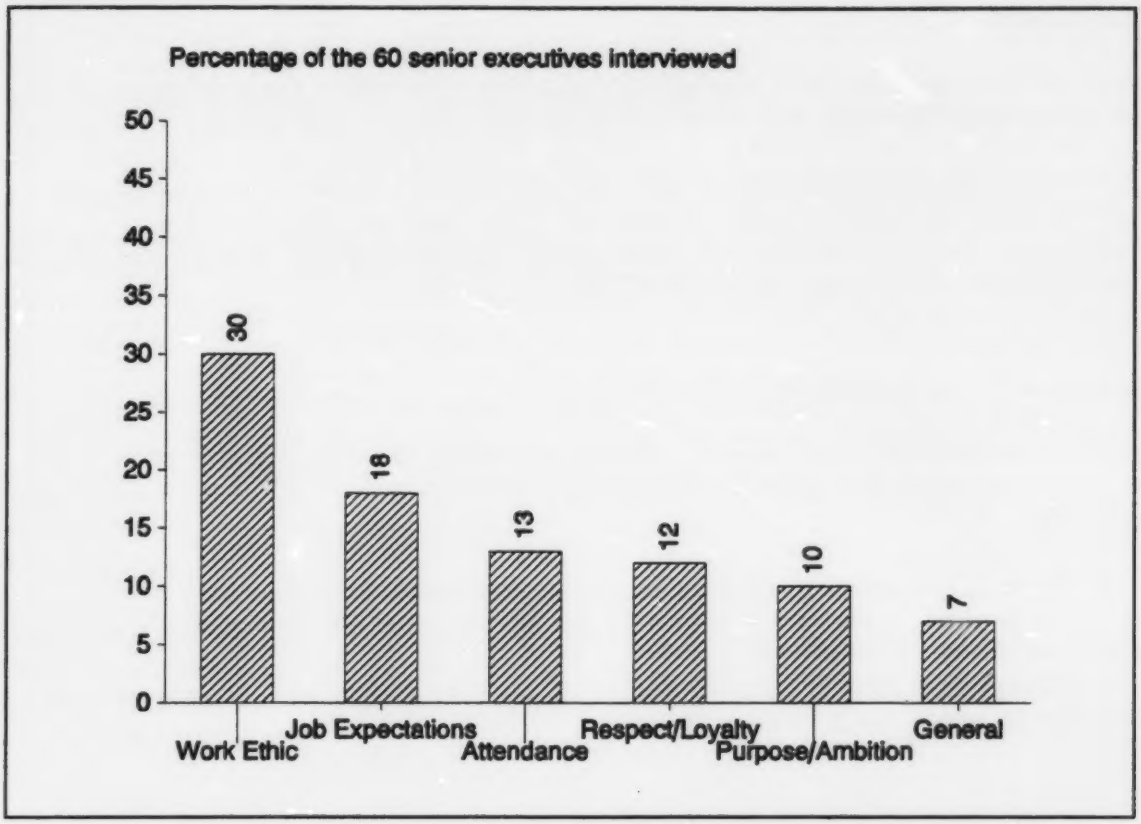

Figure 7
Areas of Concern - High School Graduates' Attitudes

" Young people seem to think the world owes them a living. This is partly due to never having failed in school. I view failure as an opportunity to excel at something else. Because they've never failed, they are devastated by failure in business."

" Young people *do* have a work ethic, but it must be encouraged by the school, the family and the community. (I am) not sure the school should be asked to *develop* young peoples' work ethic."

Most executives believe that a good work ethic is something that can be enhanced through schooling.

Graduates' Expectations of the Job

Eleven executives (18%) believe that young people have unrealistic expectations when they take their first full-time job. Examples were cited of new employees (or applicants) expecting high pay for little work and being surprised at the standards of work required of them. Other applicants expected to start at a position of authority and were unwilling to

take lesser jobs to "learn the ropes" and "pay their dues". Some executives admit that this concern may have arisen because new employees are of a higher calibre than previously and may be less subservient than when times are tougher.

> "Expectations are too high, and they lack desire. (They) seem to think they can start at the top or get there very quickly. They are surprised when they learn how long it takes."

These comments pertain to university graduates as well, but it is believed that these attitudes start in high school. This concern is attributed to the lack of exposure to business and other organizations while in school, and an apparent lack of classroom discussion and teaching on employer expectations.

> "The primary reason that high school graduates have difficulty getting work with our company is that they have no idea how to present themselves or their credentials in applying for a job. They don't know how to write a business enclosure letter, their work has spelling and grammatical errors (which could have been easily corrected had they asked someone to review their work) and they are not courteous on the telephone. As a result, we never do meet them."

Attendance and Punctuality

Eight executives (13%) see a deterioration in the sense of responsibility in young people toward attendance, punctuality and a general desire for more leisure. Many cited increased absenteeism (the "right" to 10 days sick leave per year) and carelessness about office or work hours and the length of coffee and lunch breaks.

> "Young people don't seem to have the same dedication as previously; not feeling well, take the day off. You can't gain their loyalty as easily."

Respect for Others

Seven executives (12%) stated their belief that young people do not have sufficient respect for their teachers and for others in authority, and that they don't appreciate what they can learn from someone with many more years' experience. This concern is attributed in the main to what they see as a decline in discipline exercised in the schools and the more informal teaching styles of the teachers. A number cited the casual dress and manner of teachers as partly to blame along with poor examples set by parents, many of whom are not around enough to have an impact on their children.

> "Kids don't have the same respect for their superiors as previously. They think they know lots and don't realize that an older person can teach them something."

Sense of Purpose, Ambition

Six executives (10%) expressed their concern about a need for a greater sense of purpose and motivation in young people. Many executives believe that graduates (and high school students) are less ambitious than previously. They attribute this to a growing feeling in graduates that if things don't work out, government support systems or parents will be there to help. This in turn is attributed to what is perceived to be the increasingly socialistic tendencies of teachers.

On the other hand:

> "I have seen an improvement in attitudes the last five years or so - and I meet a lot of high school students through speaking engagements. They are more focused today than previously. I'm not sure whether it's the tougher times or something else."

General Attitudes

Ten executives (17%) interviewed believe that overall attitudes have improved or are satisfactory. Four executives (7%) believe general attitudes have deteriorated.

> "The young people I see are great; the ones I read about in the paper are not so great".

> "Attitudes have also improved since we stopped treating everyone as a "winner". If everyone is a winner, no one is a winner. At one time no one failed in grades 1 through 6. Kids seem to be more aware now that they must compete."

Appendix 4 provides further detail on areas of concern for attitudes.

FINDINGS - III. SENIOR EXECUTIVES' VIEWS ON EDUCATIONAL AREAS REQUIRING IMPROVEMENT

Figure 8 presents the percentages of executives commenting for this section and FINDINGS - IV (the next section).

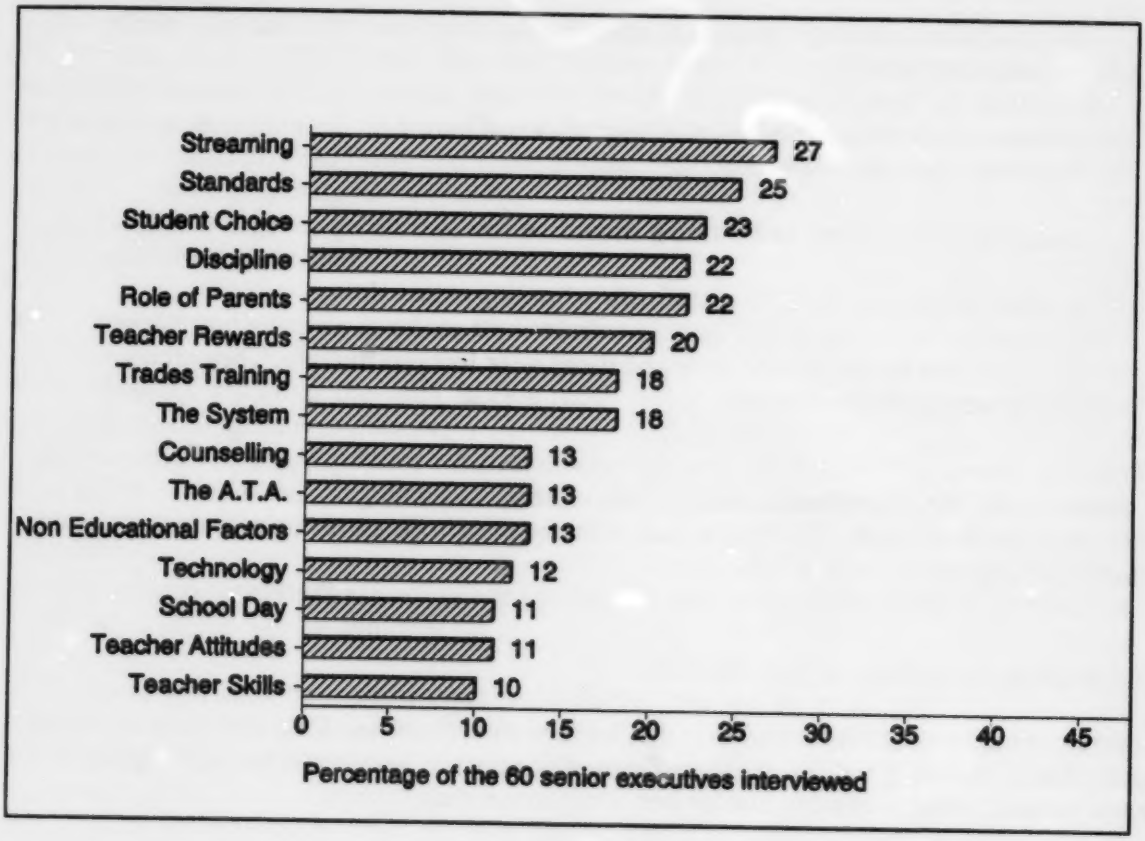

Figure 8
Other Issues

Academics and Vocational Training

Streaming

Of the sixteen executives (27%) who had strong views on if or when secondary school students should take a more specialized curriculum, 56% believe they should be streamed as late as possible or not at all, and 44% believe students should be streamed early.

Those who favour late or no streaming argue that:

- the so-called academic stream is essential for everyone who has the intellectual capacity to absorb it;
- a lesser performance in a meaningful program is better than good performance in a "training program";
- education comes first, and training should be left to training colleges and business;
- a value judgement early in a student's schooling closes doors.

> "I was in the "dumb" class and there were lots just like me. They aren't getting a fair shake".

Those who favour early streaming have the view that trades training is not given the stature it deserves, and that those more suited to non-academic challenges should be identified no later than grade 9 or 10. They argue that there are appropriate re-entry vehicles should interests change (i.e., for late "bloomers").

The Amount of Student Choice Allowed

Fourteen executives (23%) stated that they believe the reason too little emphasis is placed on the basics (reading, writing, mathematics and science) to be that the student is given too many options, often confusing him or her. They argue that:

- "the arts" should be made available if desired, but should be extracurricular; the primary exposure here should come through the family;
- excessive choice is the reason fewer and fewer go into science and technology;
- students can graduate without demonstrating basic skills because of these simpler, non-essential courses;
- students would not opt out of the tougher courses if they had no choice;

- excessive choice has led to a looser, less structured and easier program, hence the greater adjustment to the world of work.

> "It seems that fewer and fewer want to go into science. Rather, they seem to be attracted to law, accounting and education. I'm not sure whether this is the curriculum or the fact that they are given too many options. Because they get so little science, they are less comfortable about choosing it as their area."

Trades Training

Eleven executives (18%) stated that they believe there is too much emphasis on the "university stream" in high school, and that trades training is viewed as inferior to a profession by students and teachers. They believe it is important to get a higher proportion of good students into NAIT and SAIT rather than only those students whose averages are not high enough to qualify for university.

These executives argue that:

- parents and teachers convince students that success follows only a university degree;
- students will enter the work force directly rather than take trades training because a trade is viewed as inferior;
- Europe is leaving us behind because of its positive attitude to "blue collar" work, which is where severe skill shortages are expected in North America;
- university graduates are not needed to do technical work, which is where most of the work is and will be available;
- there will soon be more university graduates than can be employed;
- trades offer a better lever to self-employment, and
- more entrepreneurs come out of a trades than a professional background.

> "We - mainly the parents - are too hard on school kids in that we shove the importance of university down their throats and they don't realize the desirability of a trade. They should be counselled better and allowed to make up their own minds. What are we going to do with all these university graduates? Our industry is already laying off (professionals) while there is and will continue to be a shortage of good trades people. We've got to get more bright people into NAIT."

Evaluation of Students and Teachers

National/Provincial Standards

Fifteen executives (25%) stated that they believe educational standards in Alberta and in Canada are inferior or slipping relative to the Pacific Rim and Europe. These views are obtained partly from discussions with teachers, children or grandchildren and partly from the media. However obtained, they are strongly felt.

Some believe that standards within Alberta and particularly throughout Canada are inconsistent, and that knowledge/skill levels are therefore an "unknown" to employers hiring workers. They believe that stricter standards, through testing within the province, and through principles and policies throughout Canada, are essential if Alberta and Canada are to compete.

Some believe that provincial exams (departmentals) are being de-emphasized by teachers because they find them a deterrent to creativity and a vehicle for unfair appraisal of their performance. These executives believe that such examinations are critical in identifying students who have not met the standard "whether or not they feel good about themselves", and for identifying school systems that, for whatever reason, are not achieving high percentages of graduates.

Some believe departmental exams in the core areas (English, second language, science, social studies and mathematics) should be more frequent to keep students and teachers focused on the curriculum and their accountability to the taxpayer.

Some executives mentioned they were very pleased when the departmental exams were reinstated. They believe these exams teach young people to work under pressure, to execute things and to complete things. The use of these exams as evaluative tools for students, teachers and school systems is a bonus.

> "The Bell curve is ridiculous. Standards are compromised... Competition should be fostered rather than eliminated. Once they leave the classroom they will be in a competitive world and they should get used to being compared to some standard".
>
> "We are hampered by a lack of transferability which is backward and provincial".

The Emphasis on Test Marks as the Measure of Performance

Three executives (5%) stated that they believe test marks are given too much emphasis in school. They argue that: poor interpersonal skills and manners are a major cause of failure in business; employers would rather hire a well-rounded athlete or a club-oriented person than an introverted, high marks individual; grades which are too high should be considered

a negative factor if other activities have been neglected; and integration of knowledge (practical application in a real-life situation) should be emphasized rather than specialized knowledge.

> "There seems to be too much emphasis on academic performance. What about the person with the good work ethic who had to work hard to get 70%? He/she might be far more productive in a business setting than the academically oriented. Why do we assume that academic performance equates to ability in other areas?"

The Education System

The System

Eleven executives (18%) had views on education which go beyond what takes place in the classroom. The executives' comments have been paraphrased.

- Alberta lacks a specific vision for education into the next century.
- It is unfortunate that more business people don't sit on school boards. Perhaps they could be appointed to boards, rather than elected, just for their management and financial expertise and advice.
- Year-round schooling is an excellent idea because it utilizes the facilities much better and relieves budget pressures. The problem will be to get teachers to change their lifestyles.
- Apparently there are more non-teaching positions in the Edmonton Public School Board than teaching positions. This is shocking.
- The primary problem with education is at the top. We are not setting clear goals. We don't know whether we want to go to outer space, to be the best agricultural province, or what. As a result, our programs are not focused.
- Progressive management dictates that senior managers should be moved out of their jobs after no more than five years; otherwise, they get stale and complacent. Is this happening in education?
- Those in business find better ways to coordinate things than does the education system. Why aren't secondary schooling, advanced education and occupational training all under one Minister?
- Teachers should be rotated so they are not teaching children of the same ages for extended periods. After a while, they start sounding like their students (they become too narrow).

- The principal of each school is extremely important. Good principals seem to mean good teachers, good teacher and student morale and good teaching methods. (Several executives were quite impressed with principals they had met or had heard about).

- The semester system is a problem. You can take a course at the beginning of grade 10 and then not again until the end of grade 11. Continuity is important.

> "There is no leadership in education or in government. If they could deal with the issues and forget votes it would help. We talk to all levels of government but so few of our suggestions are ever implemented. They have gone so far overboard to accommodate the do-gooders and the minority groups that we are missing the basic education of the typical child".
>
> "To make a change to a more academic, disciplined system, we must start at the top - meet with parents, change the educational philosophy, change the education system, then change the teachers, then teach the children there are consequences to their actions."

School Day - The Amount of Time Spent in School

Seven executives (11%) stated that they believe students do not spend enough time in school, and that this is one of the reasons Canadian graduates are falling behind the Pacific Rim and Europe in academic standards. Their concerns include: too many holidays; too many spare periods; too short a school day; and too many days off for teacher activities, all of which result in a reduction in the hours of instruction.

> "There should be fewer holidays; we are trying to cram too much into too short a period. The length of time spent in school should be increasing as the body of knowledge increases - kids can't get by today in this technological world with what was satisfactory in the old days."

Suggestions for improvement include: having teacher activities during off hours, weekends or summer break; more and better supervision of spare periods which would become work periods; and year-round schooling, which is perceived to mean more instructional hours.

These executives believe that school hours should be brought more into line with typical work hours to lessen the adjustment to the world of work.

Teachers

Teacher Rewards and Evaluation

Twelve executives (20%) stated that they believe teacher excellence is not financially rewarded and that poor teachers are not given remedial training or dismissed. They believe this results in a poorer overall level of teaching competence in the system.

These executives appreciate the constraints imposed by the teachers' association but still believe teacher evaluation could be markedly improved. A number pointed out that education must find a way to reward excellence or the best teachers will continue to be frustrated and to gravitate to more financially rewarding work.

> "I don't see many teachers being recognized for their ability. We have a program with amateur coaches; they get their picture in the paper and receive a plaque. The best gets a watch and a cheque for $400 to go to the charity of his choice. The (teachers') union is a basic problem but I would be surprised if recognition such as that wasn't allowed".

> "Make sure that the best teachers don't become administrators in order to make a decent living".

The Need for Better Counselling

Eight executives (13%) stated that they believe one of the main reasons graduates are not interested in business or prepared for a career is the lack of competent and timely counselling from the school system. Their concerns are twofold:

1) most teachers, who have already chosen teaching over business, have neither the inclination nor the knowledge to counsel well in this area;

2) some believe the less competent teachers gravitate to counselling roles.

> "There doesn't seem to be sufficient emphasis on programs for those between university potential and those entering (the work force directly). Northern Alberta Institute of Technology (NAIT) and Southern Alberta Institute of Technology (SAIT) programs don't seem to have the stature they deserve. High school students should be better informed of programs and careers available there, particularly with university programs so overcrowded."

The solution is seen to be more business involvement in the classroom and better evaluation of teachers doing the counselling.

Teacher Attitudes

Seven executives (11%) stated that they believe teacher attitudes are one of the primary sources of poor attitudes among graduates. They cite teacher dress codes, casual manners, an anti-business bias in some, and a general preference to socialistic over free-enterprise politics as the main cause of this concern. They believe that individuals with these attitudes are more attracted to teaching than business, so that the problem is ongoing.

These executives are not concerned about graduates who go into business because they eventually lose these attitudes, but are concerned about those who go into others areas of work.

Other executives have been very pleased with the attitudes of their children's teachers in spite of the fact that there are no financial rewards for merit.

> "I've heard stories of principals in our area that have turned their schools around - now creating positive attitudes and self-esteem... This shows it must start at the top and carry down to the teaching level."

Teacher Skills

Six executives (10%) have concerns about the general level of teaching skills of Alberta teachers. They believe that teachers have no business experience; that there is too little emphasis on teacher development; that many teachers are not dedicated to their students but became teachers because teaching offered good pay and a long vacation; and that less qualified teachers gravitate to subjects that other teachers do not enjoy.

> "There is a shortage of good and well-trained science teachers".

One executive felt that teachers are better qualified than ever, based on the numbers of secondary school teachers with bachelor's and master's degrees.

Other Executive Recommendations

The Need for More Discipline

Thirteen executives (22%) stated that they believe more discipline is required in the schools. From their observations, there seems to be too great an adjustment for graduates when they take a job. Organizations have hours of work, deadlines to be met and other rules for which new graduates are not prepared. Their perception is that teachers are not enforcing deadlines or penalizing students who fail to hand in assignments or are frequently late for class. Instances were reported of principals who did not back up teachers who wanted to introduce more discipline.

Although it is recognized that parents may be a primary cause of this concern through their objections to their children being treated "too harshly", many believe the school system should take a firmer stand.

One executive was pleased that his children were given lots of homework.

> "Discipline is required--love and fear both have to be present (the two wings of a bird). Students respond to discipline and they aren't getting it. We have given teachers an inferiority complex and they are hamstrung about discipline".
>
> " ...school must become more structured because the job will be. Students must be prepared with school deadlines, punctuality, dress, etc. Teachers seem to defer deadlines if enough students can't meet (them). This is exactly the opposite of what we want to teach. If you can't deal with rules at school, they will not be able to at work - and all jobs have rules, and lots of them."

The Use of Technology in Education

In spite of the fact that computer literacy was given a high satisfaction rating, seven executives (12%) are concerned about the degree of use of computers in schools. Of these, six believe that too much emphasis is being given to automation. They argue that personal contact with teachers is reduced (that computers are not a substitute for a teacher); that valuable school time is being wasted on something that can be taught in a few days once basic education is finished; that the use of graphic monitors and television/video is teaching young people that they should get their information from television rather than by reading; and that students are learning to rely on computers and calculators rather than on their brains for solving problems.

> "I think the technology thing is being overdone in the schools. I understand from (a teacher) that some just plug in the video recorder and let it do all the work. I think personal contact with the teacher is important (along with) a pupil/teacher ratio of less than 25 to 1."

One executive feels the use of computers should be increased so that pupil/teacher ratios can be increased (for financial reasons) without lowering standards.

Other views expressed were:

- writing skills have decreased partly because we are over-emphasizing the creativity of the thought rather than the clarity of its communication;
- on the other hand, "High school has to recognize students who are innovative and imaginative";

- schooling seems to be set up for the average student - excellent students get bored with the repetition and review of previous material they have already mastered;

- business and economics should be taught to academic students as well as business students;

- Schooling should be individualized and involvement should be interactive. The sooner individual needs are addressed, the sooner they can be fixed (eg., learning disabilities).

> "If schools do what Bishop Carroll has done with self-paced learning they should be rewarded with more funds and more staff. Schools not doing well should be penalized."

FINDINGS - IV. GENERAL ISSUES

Other matters came up for discussion for which change may only be achievable after further reflection and study by others. These issues may have to be resolved at least partly outside the education system. Refer to Figure 8 in the previous section.

The Alberta Teachers' Association

Eight executives (13%) held strong negative views about the impact of the teachers' association on teaching attitudes and teacher evaluation. These executives argue that the teachers' association is really a union rather than a professional organization, and that many teachers have a union "mentality" as a result. Specifically, they believe that:

- principals should not be members because they have to manage and evaluate their teachers;
- the "union" is one of the sources of the anti-business, anti-management views of many teachers which are passed along to students;
- job security, tenure, the "status quo" and pension plans have become more important to many teachers than educating children;
- complaints about teachers have been "stonewalled" by the association - it is impossible to discharge incompetent teachers;
- the association is not prepared to sacrifice the security of its members by making changes to teaching and schooling as demanded by society.

> "The real problem is that we can't make adjustments to schooling nearly as fast as change in business and society dictates. The Alberta Teachers' Association (ATA) is not prepared to match these changes."

Illiteracy and the Dropout Rate

Most executives connect these two issues and five executives (8%) expressed their views on them:

> "The 30% dropout rate causes 50% of our welfare problem and 80% of our crime problem. The solution has to be more effective industrial arts and other

programs for non-academics. Ideally, everyone should graduate from high school".

"The high dropout rate is partly a reflection of opportunity. If young people can make a lot of money by dropping out, it's hard to keep them in school".

"The high dropout rate is the primary reason for the projected skills shortage in the trades. If we solve one problem, we solve the other".

The Role of Parents in Education

Of the thirteen executives (22%) who had strong views on the role of parents, ten believe that parents are not involved in the education of their children to the degree they should, or that they have a negative impact. They believe that less successful students come from less fortunate homes; work ethic is really learned at home; parents should have more responsibility placed on them for ensuring student performance; that parents complain when foreign students win awards when their own children are not working hard; that the Career and Life Management program is necessarily covering for the deficiencies of parents; that introducing more discipline is difficult because of the opposition of parents (that parents help their children get away with anti-social behaviour); and that parents don't keep themselves well informed of school activities and their child's performance.

"Many of the skills which others may believe should be taught by the schools such as personal finance and the like are values as well as skills and more the responsibility of parents. We cannot rely on the state to help us provide for our retirement."

Two executives stressed the importance of parents taking an active interest in their child's homework and performance so that the child gets both sides of the argument and sees the importance of homework and diligence.

One executive feels that the parent should not interfere with the child's schooling - that the educator is the expert and must take responsibility. The only role for the parent is to persuade the child to stay in school.

The Impact of Non-Educational Factors on Education

Eight executives (13%) stated that they believe the school system is being unfairly blamed for the "inadequacies" of its graduates when many other factors must be considered:

- in Japan and Germany, students and society sacrifice some of their freedoms (for example the early streaming of students) to achieve economic advantages;
- the impact of drugs and alcohol on the student or the family and the other social problems with which the school system must deal;

- the pressures on the system caused by the need for special education for many;
- the negative attitudes that young people are getting from the media (business is always "going broke" and fouling the environment, negative reporting in general), and from governments which cannot or will not balance their budgets;
- the current vogue to be negative about everything and to not appreciate that our society is wonderfully balanced;
- the lack of knowledge by business as to what is going on in education (the belief that nothing has changed since the 1940s or 1950s) when many meaningful improvements have in fact been made.
- a business is much easier to manage than an education system, which is multi-dimensional and much more difficult to control and keep the "customer" happy.

> "We can be too cavalier about what is wrong with education. Drugs and alcohol have a significant impact on the problem. Studies show that 25% of children have a drug or alcohol problem in their families. Most of us don't have a clear enough fix on the school system to know how much is a teaching output problem and how much is related to other factors. Teachers are dealing with a whole range of social issues because there are no other systems to handle them. The 30% dropout rate is a societal, social, educational, and heath problem."

FINDINGS - V. SENIOR EXECUTIVES' VIEWS ON HOW BUSINESS SHOULD BE INVOLVED

How to Make Schooling More Relevant to Business and the World of Work

Six executives (10%) had views on how to make schooling interact better with the content and organization of work. Their views are summarized.

- Many young people are not aware that compensation takes any form other than a straight salary. The concept of incentives, merit pay and commissions should be taught as part of the economics/business component of social studies.

- Greater emphasis should be placed on the importance of time and working under pressure. Students should be aware that if business is to be profitable, productivity and efficiency are critical.

> "Many young people seem to be "hours" driven rather than task driven. They have not been taught to finish the job, but rather just to put in time."

- Students should be taken on regular tours of businesses and other work organizations to give them a perspective of the type of meaningful work that is done, and how salaries are earned by contributing to the organization.

- Particular care should be taken to point out to students how the curriculum relates to their enhanced ability to do meaningful work for which they will be compensated.

- Students should be rewarded more tangibly for participating in programs like Junior Achievement which expose young people to the concept of entrepreneurship better than schooling could or should.

> "Free trade is coming worldwide. The Asian countries are trying a lot harder. Our children will have to compete with them. There has to be guidance as early as grades 4 to 6 with special movies and speakers so that they can be exposed a couple of times a week to tell them where education will lead them... and as citizens what they are going to contribute."

Current Educational Programs and Testing

Five executives (8%) indicated that their organizations conduct educational programs which might be described as remedial or compensatory for perceived deficiencies in schooling. In their view, some portion of this training would be unnecessary if schooling standards were raised at least with respect to oral and written communications, attitude, the desire to learn, and a willingness to compete and excel.

Two executives (3%) indicated that their organizations have pre-employment tests of reasoning, spelling, arithmetic and reading comprehension, because educational background cannot be relied on to ensure these abilities are there.

Many other organizations have educational programs and testing, but not because of a lack of confidence in the schooling of employees or prospective employees.

Business and Education Cooperation

Seventeen executives (28%) indicated that business and education must cooperate more effectively:

- Business must be more pro-active, but if necessary, education should reach out and involve them. There will be lots of response.
- We have to get away from the idea that it's up to government to look after education totally. Private industry, families and religious organizations should take a prominent role.
- Business has to find a niche where it can commit people and money.
- If students are to get a cooperative program that gives them their career options sooner, industry should seek help from education and vice versa.
- If more effort were made by schools to get business involved we could find the time, but we need a specific request. We don't know what our involvement should be.
- Business must do a better job of informing educators of their expectations for student knowledge about the general business world.

> "To use an example for the business/economics program, our Chief Accountant would donate however many hours are necessary to help the teacher develop the program."

> "Someone should come in and say, "You have a responsibility to education. Here are 30 options. Choose one that fits." Like the United Way. Send someone out to sit on advisory boards.

> Send someone to speak to our kids every year. That's how you become a shareholder".

Three negative voices indicated that it is presumptuous for business to get involved in education ("let the interested people run for boards"); that they simply didn't see a benefit for their organization, and that it's the government's job.

> "We have an industry to run and have an expectation that education will provide us with trained young people".

Many executives mentioned the Junior Achievement and Partnership programs as being very effective vehicles for business/student interaction, and that efforts should be made to increase student involvement in Junior Achievement and business involvement in formal partnerships.

Bringing Business to the Classroom

Twenty-eight executives (47%) stated that their organizations are going into or should be going into the schools to expose students to business matters. Their views follow.

- There should be more career days, and more involvement by business to explain that one can make a good living with a trade.
- Business should describe its expectations and learn the students' expectations of it.
- We are currently doing this at the university level and NAIT/SAIT, but we must do it for high school students who don't go on, and for junior high students who don't go to high school.
- School visits and Junior Achievement are our only means of public relations with young people.
- These visits should be arranged through the industry associations which would then use members to go into the schools. Some of this is now being done by industries concerned about labour shortages.
- Our retired people should be paid to go into the schools to talk about our industry and society's joint responsibility with business for environmental matters and to act as mentors to the teachers.
- Students should be advised and counselled by the employment community - but we have to be careful to use articulate, enthusiastic people.
- These visits should be done at the grade 10 level before students have chosen a career path. This way they learn the options and make more informed choices.

- These visits should include short seminars on business concepts like accounting, insurance and banking to further their knowledge and help them relate the curriculum to a job.

> "Videos on career choice could be an industry responsibility - we have an interest in them being good - we need to tell them about the variety of choices available and what they have to do to take advantage of them".

> "In the UK a lot of companies encourage employees to spend a lot of time in schools selling the excitement of the business world to teachers and students. Properly marketed, this would appeal to the self-interest of business to improve the quality of people coming in. It is more important at the secondary level".

Three executives were negative about business visiting the schools:

- Talking to high school students has a limited impact because we don't have sufficient manpower to get good coverage.
- Because we don't hire from these levels, we don't involve ourselves.
- Educators often lack the confidence to have others around them (who may be perceived as more qualified) to make suggestions.

Bringing Students to Business

Nineteen executives (32%) indicated that their organizations are either bringing students or should be bringing students into the work place for experience and exposure to business and the world of work. Their views follow.

- We must ensure the students are integrated into our systems and given meaningful work (which is often difficult) or the experience may be negative.
- It is the very good "work experience" and "job shadowing" programs which accomplish this.
- Our only role in secondary education is to provide summer employment and participate in the work experience program.
- Simple tours of business can be effective too - they will see there are hundreds of people in these tall buildings doing interesting, challenging, productive work.
- Work experience programs should be for everyone, not just those who aren't interested in university. These students should be tested by the employer.

- Our tours with students would be better coordinated and more effective if we had a continuous relationship with a school or schools.

> "We could employ six students half-days, but no one has ever approached us."

Four executives had negative views about bringing students into the business:

- It is not a worthwhile involvement because students know they only earn a credit or one-half a credit and are only interested in putting in the time. Our experience is better with females than with males, however.

- High school students are not sufficiently focused on their careers to make this worthwhile for them or us.

- We have found these work sessions to be a waste of time. The students are not productive, they cause us to fall behind and the period is too short for any real benefit.

- Our experience was unsatisfactory - many of them just wanted to socialize. The economics would have to change quite a bit before we would consider this again.

Business Liaison and Advice

Seven executives (12%) believe that formal business/education councils or boards should be set up to further common interests. They state that:

- The NAIT/SAIT Advisory Boards are effective and there should be similar boards for the high schools, which apparently Victoria Composite, Harry Ainlay and St. Joseph's have already set up.

- Advisory councils should be set up with high schools which would include business reviews of high school programs for current relevance.

- Business/Industry advisory boards are the answer - at the school board level, the department level, and the higher education level. The board should report directly to the Minister and use subcommittees for each subject area.

- An education council, composed perhaps of the executives interviewed for this project, should be set up to speak on a generic basis about business and its relevance to schooling.

- Business might help in putting the "drier" aspects of the curriculum into a more attractive package.

- Advisory systems are hard for business to initiate; they should be initiated by the government.

One negative voice indicated that industry advisory boards are not practical for high schools because students are not focused sufficiently on an industry to result in a payback to business.

Financial Assistance

Five executives (8%) indicated that their organizations provide direct financial assistance to postsecondary institutions or students through bursaries, scholarships, chairs, or program funding. Only one indicated similar funding might be appropriate or possible at the secondary school level.

Comments on This Survey

Many executives stressed the benefits that will accrue to the education system and to their organizations by having their views solicited through this survey. Many requested copies of the summarized results. Some of their comments included:

> "What will be accomplished by this? We collect ideas but there is always some reason why we can't do it. I want a copy of the report so I can see how my views compare with others, and see the recommendations made to the Minister."
>
> "There should be three further surveys: one of teachers, one of students and one of parents. This should be followed by a weekend "think tank" composed of business, government and educational administrators to decide:
>
> 1) what change is easy or controversial;
> 2) what changes are the most important;
> 3) priorities for change."
>
> "This study is a good start. There should be surveys, school board advisory committees, and meetings with stakeholders to get their expectations."
>
> "I want more than a conversation. What is the next step? Will there be an action plan developed within a year?"

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was to determine the strengths and weaknesses of the education system in Alberta from the perspective of senior executives in the private sector. The Minister of Education solicited the views of Alberta commerce and industry on the following:

- the current strengths of the education system;
- necessary improvements to educational programs and services;
- the knowledge, skills and attitudes necessary for Alberta graduates to meet the challenges and opportunities of a changing world.

Figure 2 shows that at least 25% of executives interviewed stated that they expected high school graduates (and young people with some secondary schooling) to demonstrate abilities in the following areas:

- *Writing*, including English, grammar and spelling - 60% of executives interviewed. Figure 6 shows that 45% of executives interviewed expressed concerns about graduates' abilities.

- *Communicating*, including listening, speaking and understanding - 48%. Thirty-five per cent expressed concerns about ability levels.

- *Reading*, meaning comprehension and including exposure to literature - 43%. Fifteen per cent expressed concerns about ability levels.

- *Social Studies*, including government, politics, Canada, world events, history, geography and citizenship - 43%. Ten per cent expressed concerns about ability levels.

- *Numeracy* (mathematics and arithmetic) - 33%. Seventeen per cent expressed concerns about ability levels.

- *Computing*, including keyboard skills - 33%. Five per cent expressed concerns; 10 per cent were completely satisfied with ability levels.

- *Learning* (desire to, ability to, appreciation of) - 33%. Three per cent expressed concerns about ability levels.

- *Science* (general, chemistry, physics) - 25%. Two per cent expressed concerns about ability levels.

Seventeen per cent of those interviewed stated that they expected graduates to have a good *work ethic*, including self-sustenance and discipline. Thirty per cent expressed concerns about the work ethic of young people.

General skills, meaning all skills taken together: 12% believe these to be satisfactory or better.

General Attitudes, meaning all attitudes taken together: 17% believe these to be satisfactory or better.

Conclusions

Business executives in Alberta are most concerned about graduates' and young peoples' abilities in *writing*, *communicating*, *numeracy* and *reading*, and the apparent lack of a good *work ethic* in many young people. Generally, they are much less concerned (or actually satisfied) with abilities and attitudes in other areas.

With respect to other findings, it is clear that senior executives are most concerned about:

- the degree to which students are *streamed* (although there is no consensus as to whether students should be streamed earlier, later or not at all);
- the need for better *standards* so that employers can be confident that those hired have the requisite knowledge and skills;
- the extent of program *choice* available to students; most believe there is too much choice and that the basics are not sufficiently stressed;
- the need for more *discipline* in the classroom, and for principals and parents to support teachers who try to implement more discipline;
- the need for *parents* to be more aware of their responsibility for their child's education;
- the need to *reward teachers* who are performing well and deal with those who are not meeting the standard.

In each of these areas, at least 20% of executives interviewed expressed their interest and concern.

Twenty-eight executives (47%) stated that their organizations are either going into or should be going into the schools to expose students to business matters.

Nineteen executives (32%) indicated that their organizations are either bringing students or should be bringing students into the work place for experience and exposure to business and the world of work.

Seventeen executives (28%) indicated that business and education must cooperate more effectively.

Recommendations

1. That the department meet with the senior executives interviewed to discuss the study findings and develop a joint action plan for the required changes. Prior to this meeting, the senior executives should consider how the private sector might articulate its needs more fully and communicate these needs and employment projections to the department.

2. That a formal survey be conducted (questionnaire) of senior executives in Alberta to validate the study conclusions and seek the input of a much larger group of executives, including those in the public sector, the not for profit sector, and post-secondary institutions.

3. That a special group be formed for each major area of concern consisting of representatives of Alberta Education, school boards and senior executives who express an interest in participating. These groups should report to the Minister of Education and recommend on:

    - what changes should be made, and how, to make schooling more relevant to the world of work;

    - priorities for change and an action plan.

APPENDICES

1. Minister's Letter
2. Table of Expectations
3. Table of Areas of Concern - Knowledge and Skills
4. Table of Areas of Concern - Attitudes

Appendix 1

Minister's Letter

April 10, 1991

Dear...

As Minister of Education, I want our children to get the education they need to be successful citizens, entrepreneurs and employees. I believe you share the same goal.

If we are to prepare Alberta's young people for the future, we need to know the strengths and weaknesses of our educational system. That is where I need your help.

In cooperation with the Alberta Chamber of Commerce, the Government has engaged the Alberta Management Group to undertake a dialogue with business leaders in Alberta to find out their views of Alberta's educational system. What are its strengths? Where must we improve our educational programs and services? Do our graduates have the knowledge, skills and attitudes necessary to meet the challenges and opportunities of a changing world?

I would like you to participate. I believe your perspective and that of your organization are vital to the outcome of this dialogue.

Dick Meanwell and Gail Barrington, of the Alberta Management Group, will conduct a number of personal interviews with senior executives. You will be called in the next few days to arrange for a confidential interview to collect your opinions on the following questions:

1. What are your expectations of our grade 12 graduates?

2. What knowledge, skills and attitudes do you believe are necessary for them to be successful citizens or entrepreneurs or employees?

3. How satisfied are you with their current level of knowledge, skills and attitudes?

4. What needs to be improved in the educational system?

5. How can business and industry become more involved?

.../2

The information you provide will be confidential so I ask you to be as candid and forthright as possible. Your opinions and suggestions will help us determine future directions for education in Alberta.

I appreciate your help in making our educational system all that it can be for our children.

Yours sincerely,

Jim Dinning
Minister of Education

cc: Mr. Wilfred Barranoik
President
Alberta Chamber of Commerce

Appendix 2

Table of Expectations

Area of Knowledge or Ability	Commercial Businesses (n=19)	Industrial Businesses (n=27)	Professional & Financial (n=14)	Total (n=60)
Literacy:				
General	4	1	1	6
Writing	7	10	6	23
Grammar	2	1	1	4
English	3	1	2	6
Spelling	3	0	0	3
Reading	6	10	6	22
Literature	1	1	2	4
Total literacy	26	24	18	68
Communicating	9	7	8	24
Speaking and Listening	1	3	1	5
Total	10	10	9	29
Social Studies:		2	1	3
Government, Politics		1	2	3
Canada, World Events		3	1	4
History	1	4	4	9
Geography	1	2	2	5
Citizenship	1		1	2
Total	3	12	11	26
Mathematics	5	8	5	18
General Numeracy	1	1		2
Total	6	9	5	20
Computing, Keyboard	6	11	3	20

Appendix 2

Table of Expectations

Area of Knowledge or Ability	Commercial Businesses (n=19)	Industrial Businesses (n=27)	Professional & Financial (n=14)	Total (n=60)
Desire to Work and Learn	3	5		8
Learning for Life	2	4		6
Learning to Learn, Study Habits		4	2	6
Total	5	13	2	20
Science	3	7	1	11
Chemistry, Physics	1	3		4
Total	4	10	1	15
Interpersonal Skills	6	7	1	14
Life Skills, Survival	5	5	2	12
Positive, Friendly, Enthusiastic	8	2	1	11
Work Ethic:	3	3	1	7
Self-sustenance		1	1	2
Work Discipline	1			1
Total	4	4	2	10
Sense of Purpose, Ambition, Pride	1		1	2
Confidence, Esteem	2	3	3	8
Total	3	3	4	10
Finance & Budgets	2	2	1	5
Business/Economics		5		5
Total	2	7	1	10

Appendix 2

Table of Expectations

Area of Knowledge or Ability	Commercial Businesses (n=19)	Industrial Businesses (n=27)	Professional & Financial (n=14)	Total (n=60)
Job Knowledge	1	2	2	5
Interview Skills	2			2
Career Options		1	1	2
Total	3	3	3	9
Problem Solving, Thinking, Reasoning	2	4	3	9
Importance of Customer, Quality Movement	2	4	2	8
Teamwork		2	4	6
Not Graphed:				
Responsible, Reliable, Trustworthy	3	1	1	5
Loyal, Tolerant, Appreciative	3	2		5
Second Language	2	2		4
Balanced Generalist	1	2	1	4
Curious, Creative, Inquiring		2	1	3
Appearance	3			3

Each of the following (not included in Appendix 2) were mentioned once or twice as an educational expectation: health/physical education, research, memory, mechanical operations, entrepreneurship, analysis, punctuality, manners/etiquette.

Appendix 3

Table of Areas of Concern
Knowledge and Skills

Knowledge or Ability	Number Positive	Number Concerned
General Skills	7	2
Computer Literacy	6	3
Literacy:		
General		4
Writing	1	20
Composition		8
Spelling		7
Grammar	1	7
Less Duplications		(15)
Reading	1	9
Communications	3	17
Speaking and Conversing	2	4
Numeracy: Mathematics, Arithmetic	3	10
Problem Solving, Thinking, Reasoning		7
Social Studies:		
World Events, History	1	2
Geography		3
Government, Politics	2	1
Not Graphed:		
Finance, Business, Economics		6
Interpersonal Skills	2	4
Entrepreneurship	1	1

Appendix 4

Table of Areas of Concern
Attitudes

Knowledge or Ability	Number Positive	Number Concerned
General Attitudes	10	4
Work Ethic	3	12
The "world owes me a living"		6
Job expectations too high		8
Knowledge of what is expected of them	2	3
Attendance: Absenteeism, Leisure time		6
Punctuality		2
Respect for others	1	5
Loyalty, Tolerance, Appreciativeness		2
Sense of purpose, Ambition, Motivation	2	6
Not Graphed:		
Initiative, Decision-making	1	2
Curiosity, Creativeness	1	1
Desire to Learn, Study Habits		2
Importance of Customer		2
Positivism, Enthusiasm	1	2
Social Responsibility, Ethics	1	2
Attitude to Business and Management		3
Responsibility		2